

IRPL-F22

National Bureau of Standards  
AUG 21 1947

# IONOSPHERIC DATA

ISSUED  
JUNE, 1946

PREPARED BY INTERSERVICE RADIO PROPAGATION LABORATORY  
National Bureau of Standards  
Washington, D.C.







Organized under Joint U.S. Communications Board

# IONOSPHERIC DATA

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## TERMINOLOGY AND SCALING PRACTICES

The symbols and terminology used in this report are those adopted by the International Radio Propagation Conference, and given in detail on pages 24 to 26 of the report IRPL-C61, "Report of International Radio Propagation Conference, " and in the section on "Terminology", in reports IRPL-F1, 2, 3, 4, 5.

In the past, ionospheric conditions were summarized on a monthly basis by using average or mean values, for each hour of the day, for each month. However, following the recommendations of the International Radio Propagation Conference, held in Washington 17 April to 5 May 1944, beginning with data for 1 Jan. 1945, median values were used by IRPL wherever possible. Thus, median values are given for Washington, for all stations reporting directly to the IRPL, for the Canadian stations, and for all others sending in detailed tabulations to the IRPL, from which medians can be computed.

Where averages are reported, they are, at any hour, the average for all the days during the month for which numerical data existed.

The monthly median values used here are the values equalled or exceeded on half the days of the month at the given hour. The following conventions are used in determining the medians for hours when no measured values are given because of equipment limitations and ionospheric irregularities. Symbols used are those given in the report referred to above, IRPL-C61.

a. For all ionospheric characteristics:

Values missing because of A, B, C or F (see terminology referred to above) are omitted from the median count.

b. For critical frequencies and virtual heights;

Values missing because of E are counted as equal to or less than the lower limit of the recorder.

Values missing because of D are counted as equal to or greater than the upper limit of the recorder.

Values missing because of G are counted;

1. For  $f^oF2$ , as equal to or less than  $f^oF1$ .

2. For  $h'F2$ , as equal to or greater than the median.

Values missing for any other reason are omitted from the median count.

c. For muf factors (M-factors):

Values missing because of G are counted as equal to or less than the median.

Values missing for any other reason are omitted from the median count.

d. For sporadic E ( $E_s$ ):

Values of  $fE_s$  missing because no  $E_s$  reflections appeared, the equipment functioning normally otherwise, are counted as equal to or less than the lower limit of the recorder.

Values of  $fE_s$  missing for any other reason, and values of  $hE_s$  missing for any reason at all, are omitted from the median count.

Beginning with data for November 1946, doubtful monthly median values for ionospheric observations at Washington, D.C., are indicated by parentheses, in accordance with the practice already in use for doubtful hourly values. The following are the conventions used to determine whether or not a median value is doubtful:

1. If only four values or less are available, no median value is computed, the data being considered insufficient.

2. For the F2 layer, if only five to nine values are available, the median is considered doubtful. The E and F1 layers are so regular in their characteristics that, so long as there are at least five values, the median is not considered as doubtful.

3. For all layers, if more than half of the values used to compute the median are doubtful (either doubtful or interpolated), the median is considered doubtful.

It is expected that this practice will be of assistance in evaluating the monthly median Washington data.



The ionospheric data given here in graphical and tabular form were assembled by the Interservice Radio Propagation Laboratory for analysis and correlation, incidental to IRPL predictions of radio propagation conditions. The following are the sources of the data;

**Australian Council for Scientific and Industrial Research,**

Radio Research Board, Australia:

Brisbane, Australia  
Canberra, Australia  
Cape York, Australia  
Hobart, Tasmania

**British National Physical Laboratory, and Inter-Services Ionosphere Bureau:**

Slough, England  
Great Baddow, England  
Burghead, Scotland  
Capetown, Union of S. Africa  
Colombo, Ceylon  
Oslo, Norway  
Cairo, Egypt  
Falkland Is.

**Canadian Radio Wave Propagation Committee:**

Churchill, Canada  
Ottawa, Canada  
St. John's, Newfoundland  
Prince Rupert, Canada  
Clyde, Baffin I.  
Victoria Beach, Canada  
Swan River, Manitoba (Mobile unit)  
The Pas, Manitoba (Mobile unit)

**New Zealand Radio Research Committee:**

Kermadec Is.  
Christchurch (Canterbury University College Observatory)  
Campbell I.  
Pitcairn I.  
Barotonga I.

**Scientific Research Institute of Terrestrial Magnetism, Moscow, U.S.S.R.:**

Bukhta, Tikhaya, U.S.S.R.  
Tomsk, U.S.S.R.  
Sverdlovsk, U.S.S.R.  
Moscow, U.S.S.R.  
Leningrad, U.S.S.R.  
Alma Ata, U.S.S.R.



**Carnegie Institution of Washington (Department of Terrestrial Magnetism):**

Christmas I.  
 Fairbanks, Alaska (University of Alaska, College, Alaska)  
 Maui, Hawaii  
 Trinidad, Brit. West Indies  
 Huancayo, Peru  
 Watheroo, W. Australia  
 Adak, Alaska

**United States Army Signal Corps:**

Leyte, Philippine Is.  
 Guam I.  
 Tokyo, Japan

**National Bureau of Standards:**

Washington, D.C.

**Stanford University:**

San Francisco, California

**Louisiana State University:**

Baton Rouge, Louisiana

**University of Puerto Rico:**

San Juan, P.R.

**Harvard University:**

Boston, Massachusetts

**All India Radio (Government of India), New Delhi, India:**

Bombay, India  
 Delhi, India  
 Madras, India  
 Peshawar, India

**Radio Wave Research Laboratories, Central Broadcasting Administration,  
 Chungking, China**

**National Wuhan University:**

Loshan, China

The tables of "provisional data" give values (1) as reported either to the IRPL or other central laboratory by telephone or telegraph; or (2) which are reported in summary form by stations from which monthly ionospheric data for every day and every hour may normally be expected at a later date.

The tables and graphs of "final data" are correct for the values reported to the IRPL, but, because of variations in practice in the



interpretation of records and scaling and manner of reporting of values, may at times give an erroneous conception of typical ionospheric characteristics at the station. Some of these errors are due to:

- a. Differences in scaling records where spread echoes are present.
- b. Omission of values where  $f^oF_2$  is less than or equal to  $f^oF_1$ , leading to erroneously high values of monthly average or median values.
- c. Omission of values where critical frequencies are less than the lower frequency limit of the recorder, also leading to erroneously high values of monthly average or median values.

These effects were discussed on pages 6 and 7 of the previous F-series reports, IRPL-F1, 2, 3, 4, and 5.

The dashed-line prediction curves of the graphs of ionospheric data are obtained from the predicted zero-muf contour charts of the IRPL-D series publications. Predictions for individual stations used to construct the charts may be more accurate than the values read from the chart since some smoothing of the contours is necessary to allow for the longitude effect within a zone.

Discrepancies between predicted and observed values are often ascribable to these effects.

## IONOSPHERIC DATA FOR EVERY DAY AND HOUR

These data, observed at Washington, D.C., follow the scaling practices given in the report IRPL-C61, "Report of International Radio Propagation Conference", pages 36 to 39, and the median values are determined by the conventions given under "Terminology and Scaling Practices" above.

## IONOSPHERE DISTURBANCES

Table 81 presents ionosphere character figures for Washington, D.C., during May 1946, as determined by the criteria presented in the report IRPL-E5, "Criteria for Ionospheric Storminess", together with American magnetic K-figures which are usually covariant with them.

Table 84 gives provisional radio propagation quality figures for North Atlantic and North Pacific areas, for 01 to 12 and 13 to 24 GCT, April 1946, compared with the IRPL daily radio disturbance warnings, which are primarily for the North Atlantic paths, the IRPL weekly radio propa-



gation forecasts of probable disturbed periods (beginning with the forecast of 5 April 1946, daily numerical estimates for zones A, B, and C were suspended) and the half-day American geomagnetic K-figures.

The radio propagation quality figures for the North Atlantic were prepared from radio traffic and ionospheric data, reported to the IRPL, in the manner described in detail in report IRPL-R31, "North Atlantic Radio Propagation Disturbances October 1943 through October 1945", issued 1 Feb. 1946.

The radio propagation quality figures for the North Pacific were prepared from radio traffic and ionospheric data, reported to the IRPL, in the manner described in detail in report IRPL-R13, "Ionospheric and Radio Propagation Disturbances, October 1943 through February 1945", issued 24 May 1945.

## IONOSPHERIC MEASURES OF SOLAR ACTIVITY FOR THE PAST SOLAR CYCLE

Critical frequencies of all the regular ionospheric layers exhibit well-defined, approximately linear trends with solar activity, so that, for any time and place,

$$f^o = f_1(t) + f_2(t)S \quad (1)$$

where  $f^o$  is the critical frequency,  $f_1$  and  $f_2$  are functions of the time of day,  $t$ , and  $S$  is the smoothed sunspot number. Where sufficient ionospheric data have been taken, so that the functions  $f_1(t)$  and  $f_2(t)$  are well known, and for values of  $f^o$  such that their variation with solar activity is large in comparison to their random variation, it is possible, therefore, to obtain from the critical frequency,  $f^o$ , a value of  $S$  in the above equation. This value of ionospheric "sunspot number" will not, in general, be exactly equal to the observed sunspot number for the time under consideration, but will correspond more nearly with the smoothed sunspot number for this time. Because of this fact, and because both the observations of  $f^o$  and the trends  $f_1(t)$  and  $f_2(t)$ , which are derived from many observations, are far less erratic, inherently, and less subject to observational errors than are sunspot numbers, these values of ionospheric "sunspot number" seem likely to be better measures of solar activity than are observed sunspot numbers. (Cf. IRPL-R26, "The Ionosphere as a Measure of Solar Activity").

A convenient and rapid means of estimating " $S$ ", the ionospheric "sunspot number",<sup>13</sup> by means of nomographic representations of Eq. 1, above, examples of which are given for each month of the year for data from Washington, D.C., Huancayo, Peru and Watheroo, W. Australia, stations where



ionospheric trends are particularly well established, in the report cited above.

In constructing such nomograms, use is made of the fact that the collinearity of three points having coordinates  $x_1y_1$ ,  $x_2y_2$ ,  $x_3y_3$ , may be expressed by the determinant

$$\begin{vmatrix} x_1 & y_1 & 1 \\ x_2 & y_2 & 1 \\ x_3 & y_3 & 1 \end{vmatrix} = 0$$

If the coordinates  $x = 0$ ,  $y = 0$  are arbitrarily taken to represent the lower left-hand corner of such nomograms,  $\delta$  taken as the width of the nomogram, and parallel side scales, equally subdivided, taken to represent values of  $f^\circ$  and  $S$ , with scale factors  $\ell_1$  and  $\ell_2$ , respectively,  $L$  being the total length of the  $f^\circ$  scale, the determinant for the expression of Eq. 1 may be given as

$$\begin{vmatrix} 0 & (L - \ell_1 f^\circ) & 1 \\ \delta & \ell_2 S & 1 \\ F & G & 1 \end{vmatrix} = 0$$

This delineates the nomogram as one having a left-hand vertical scale of  $(L - \ell_1 f^\circ)$ , a right-hand vertical scale  $\ell_2 S$ , and a third scale whose  $x$  and  $y$  coordinates at each point are  $F$  and  $G$ , respectively, the values of  $F$  and  $G$  to be found by reference to Eq. 1.

To find  $F$  and  $G$ :

By expansion of the above determinant,

$$F [L - \ell_1 f^\circ] + \delta G - \ell_2 S F - (L - \ell_1 f^\circ) \delta = 0$$

Substituting the value of  $S$ , from Eq. 1,

$$S = \frac{f^\circ - f_1(t)}{f_2(t)}$$

$$F [L - \ell_1 f^\circ] + \delta G - \ell_2 \frac{f^\circ - f_1(t)}{f_2(t)} F - (L - \ell_1 f^\circ) \delta = 0,$$

or, collecting terms in  $f^\circ$ ,

$$f^0 \left[ -F \ell_1 - \frac{\ell_2 F}{f_2(t)} + \ell_1 \delta \right] + \left[ FL + \delta G + \frac{\ell_2 f_1(t) F}{f_2(t)} - L \delta \right] = 0.$$

Since this must hold for all values of  $f^0$ , the coefficient of  $f^0$ , and the term not involving  $f^0$ , must vanish identically, and

$$F = \frac{\ell_1 \delta}{\left[ \ell_1 + \frac{\ell_2}{f_2(t)} \right]}$$

$$G = \frac{L - \ell_2 \ell_1 f_1(t)}{f_2(t) \left[ \ell_1 + \frac{\ell_2}{f_2(t)} \right]} - \frac{L \ell_1}{\ell_1 + \frac{\ell_2}{f_2(t)}}$$

The curved nomogram scale, FG, lies between the two parallel vertical scales, since the relationship between  $f^0$  and S, as expressed in Eq. 1 is direct, and their scale values, as chosen, run oppositely. Its x-coordinate, F, at any point, is a measure of the relative variability of  $f^0$  with S, since it involves  $f_2(t)$ , only, besides the arbitrary constants establishing the nomogram scales.

Thus, positions on the central scale of these nomograms, such that F is large, represent the best hours of the day for determining "S" from ionospheric observations. In general, these hours are those near midday.

Fig. 77 presents values of ionospheric "sunspot number" for the past solar cycle, and the beginning of the present cycle, determined, as were the values given for a limited portion of this period, by the method used in IRPL-26, "The Ionosphere as a Measure of Solar Activity". Each value is the average of values of "S" obtained from the nomograms of IRPL-E26, and the  $f^0 F_2$  for the five hours centered on noon for Washington, D.C., Huancaayo, Peru, and Watheroo, W. Australia. In cases where data from all three stations were not available, the data from those available were used, corrected by the average factor, for the month concerned, relating their values of "S" to those determined from all three stations, when data from all were available.

The nomograms of IRPL-E26 were made using yearly-average trends of  $f^0 F_2$ , to which were applied average values (monthly indexes) for all data available,



of the ratio of pertinent monthly values to the yearly-average value centered on the month.

The values of ionospheric "sunspot number" presented in Fig. 78 were determined in the same manner as those presented in Fig. 77, except that, in this case, a different set of nomograms were used, constructed from directly plotted monthly trends. Thus the deviation in values between Figs. 77 and 78 are probably as great as are likely to be obtained with use of the same original data. It may be seen that even with this difference, most of the small variations in the cycle are nearly identical in the two cases.

Fig. 79 presents actual sunspot data for the same period.

In all cases, dots represent monthly-average values, while solid lines represent twelve-month running-average values.

It may be readily seen that the deviations of ionospheric "sunspot numbers" from their running-average values is far less than those for ordinary sunspot numbers. Moreover, the running-average curves for ionospheric "sunspot numbers" are far smoother. Since major variations in both ionospheric "sunspot number" curves and the ordinary sunspot number curve nearly always agree, it seems probable that many of the small irregularities in the latter curve are not truly representative of basic solar activity, and that the ionospheric "sunspot numbers" might be therefore expected to correlate better with other geophysical phenomena.

Table 1 (Provisional Data)

Olyda, Barfin I. (70.5°N, 66.6°W) May 1946

| Time | h'P2 | P2P2 | h'P1 | P2P1 | h'E | P2E | Time | P2-M5000 |
|------|------|------|------|------|-----|-----|------|----------|
| 00   |      | 4.3  |      |      |     |     |      | 3.1      |
| 01   |      | 4.2  |      |      |     |     |      | 3.1      |
| 02   |      | 4.0  |      |      |     |     |      | 3.0      |
| 03   |      | 3.7  |      |      |     |     |      | 3.0      |
| 04   |      | 4.0  |      |      |     |     |      | 3.0      |
| 05   |      | 3.9  |      |      |     |     |      | 2.8      |
| 06   |      | 3.9  |      |      |     |     |      | 2.9      |
| 07   |      | 4.4  |      |      |     |     |      | 2.8      |
| 08   |      | 4.9  |      |      |     |     |      | 2.8      |
| 09   |      | 5.1  |      |      |     |     |      | 2.9      |
| 10   |      | 5.2  |      |      |     |     |      | 2.8      |
| 11   |      | 5.4  |      |      |     |     |      | 2.9      |
| 12   |      | 5.2  |      |      |     |     |      | 2.8      |
| 13   |      | 5.1  |      |      |     |     |      | 2.8      |
| 14   |      | 4.9  |      |      |     |     |      | 2.8      |
| 15   |      | 5.2  |      |      |     |     |      | 2.9      |
| 16   |      | 5.1  |      |      |     |     |      | 2.9      |
| 17   |      | 4.9  |      |      |     |     |      | 2.9      |
| 18   |      | 5.2  |      |      |     |     |      | 2.9      |
| 19   |      | 4.8  |      |      |     |     |      | 3.0      |
| 20   |      | 4.8  |      |      |     |     |      | 3.0      |
| 21   |      | 4.5  |      |      |     |     |      | 3.1      |
| 22   |      | 4.5  |      |      |     |     |      | 3.1      |
| 23   |      | 4.4  |      |      |     |     |      | 3.1      |

Time: 75.0°W.  
Sweep: 2.0 Mc in one minute.  
Median values.

Table 1 (Provisional Data)

Churchill, Canada (58.5°N, 94.2°W) May 1946

| Time | h'P2 | P2P2 | h'P1 | P2P1 | h'E | P2E | Time | P2-M5000 |
|------|------|------|------|------|-----|-----|------|----------|
| 00   |      | 4.4  |      |      |     |     |      | 2.7      |
| 01   |      | 4.5  |      |      |     |     |      | 2.9      |
| 02   |      | 4.6  |      |      |     |     |      | 2.9      |
| 03   |      | 4.2  |      |      |     |     |      | 3.0      |
| 04   |      | 4.3  |      |      |     |     |      | 2.9      |
| 05   |      | 4.4  |      |      |     |     |      | 3.0      |
| 06   |      | 4.6  |      |      |     |     |      | 2.8      |
| 07   |      | 5.3  |      |      |     |     |      | 2.8      |
| 08   |      | 5.7  |      |      |     |     |      | 2.7      |
| 09   |      | 5.5  |      |      |     |     |      | 2.7      |
| 10   |      | 5.7  |      |      |     |     |      | 2.7      |
| 11   |      | 5.9  |      |      |     |     |      | 2.7      |
| 12   |      | 6.1  |      |      |     |     |      | 2.7      |
| 13   |      | 6.1  |      |      |     |     |      | 2.6      |
| 14   |      | 6.5  |      |      |     |     |      | 2.6      |
| 15   |      | 6.4  |      |      |     |     |      | 2.7      |
| 16   |      | 6.3  |      |      |     |     |      | 2.7      |
| 17   |      | 6.2  |      |      |     |     |      | 2.9      |
| 18   |      | 6.0  |      |      |     |     |      | 2.8      |
| 19   |      | 5.7  |      |      |     |     |      | 2.9      |
| 20   |      | 5.0  |      |      |     |     |      | 2.8      |
| 21   |      | 5.0  |      |      |     |     |      | 2.8      |
| 22   |      | 4.3  |      |      |     |     |      | 2.9      |
| 23   |      | 4.5  |      |      |     |     |      | 2.8      |

Time: 90.0°W.  
Sweep: 2.0 Mc to 16.0 Mc in one minute.  
Median values.

Table 2 (Provisional Data)

Fairbanks, Alaska (64.9°N, 147.8°W) May 1946

| Time | h'P2 | P2P2 | h'P1 | P2P1 | h'E | P2E | Time | P2-M5000 |
|------|------|------|------|------|-----|-----|------|----------|
| 00   |      | 300  |      |      |     |     |      | 2.7      |
| 01   |      | 310  |      |      |     |     |      | 2.7      |
| 02   |      | 310  |      |      |     |     |      | 2.6      |
| 03   |      | 340  |      |      |     |     |      | 2.8      |
| 04   |      | 380  |      |      |     |     |      | 2.6      |
| 05   |      | 450  |      |      |     |     |      | 2.5      |
| 06   |      | 450  |      |      |     |     |      | 2.5      |
| 07   |      | 440  |      |      |     |     |      | 2.5      |
| 08   |      | 440  |      |      |     |     |      | 2.5      |
| 09   |      | 450  |      |      |     |     |      | 2.5      |
| 10   |      | 450  |      |      |     |     |      | 2.5      |
| 11   |      | 440  |      |      |     |     |      | 2.6      |
| 12   |      | 440  |      |      |     |     |      | 2.6      |
| 13   |      | 440  |      |      |     |     |      | 2.6      |
| 14   |      | 440  |      |      |     |     |      | 2.6      |
| 15   |      | 430  |      |      |     |     |      | 2.7      |
| 16   |      | 400  |      |      |     |     |      | 2.6      |
| 17   |      | 400  |      |      |     |     |      | 2.7      |
| 18   |      | 300  |      |      |     |     |      | 2.8      |
| 19   |      | 280  |      |      |     |     |      | 2.8      |
| 20   |      | 280  |      |      |     |     |      | 2.9      |
| 21   |      | 280  |      |      |     |     |      | 2.8      |
| 22   |      | 290  |      |      |     |     |      | 2.8      |
| 23   |      | 300  |      |      |     |     |      | 2.8      |

Time: 150.0°W.  
Sweep: 16.0 Mc to 0.5 Mc in fifteen minutes.  
Median values.

Table 4 (Provisional Data)

Prince Rupert, Canada (54.3°N, 130.3°W) May 1946

| Time | h'P2 | P2P2 | h'P1 | P2P1 | h'E | P2E | Time | P2-M5000 |
|------|------|------|------|------|-----|-----|------|----------|
| 00   |      | 4.3  |      |      |     |     |      | 3.0      |
| 01   |      | 4.2  |      |      |     |     |      | 3.0      |
| 02   |      | 4.0  |      |      |     |     |      | 2.8      |
| 03   |      | 3.7  |      |      |     |     |      | 2.9      |
| 04   |      | 3.7  |      |      |     |     |      | 2.9      |
| 05   |      | 4.1  |      |      |     |     |      | 2.9      |
| 06   |      | 4.7  |      |      |     |     |      | 2.9      |
| 07   |      | 4.9  |      |      |     |     |      | 2.8      |
| 08   |      | 5.3  |      |      |     |     |      | 2.8      |
| 09   |      | 5.5  |      |      |     |     |      | 2.8      |
| 10   |      | 5.8  |      |      |     |     |      | 2.8      |
| 11   |      | 5.9  |      |      |     |     |      | 2.8      |
| 12   |      | 6.3  |      |      |     |     |      | 2.8      |
| 13   |      | 5.9  |      |      |     |     |      | 2.8      |
| 14   |      | 5.9  |      |      |     |     |      | 2.9      |
| 15   |      | 6.0  |      |      |     |     |      | 3.0      |
| 16   |      | 6.0  |      |      |     |     |      | 3.0      |
| 17   |      | 6.1  |      |      |     |     |      | 3.1      |
| 18   |      | 6.1  |      |      |     |     |      | 3.2      |
| 19   |      | 6.2  |      |      |     |     |      | 3.2      |
| 20   |      | 6.2  |      |      |     |     |      | 3.2      |
| 21   |      | 6.2  |      |      |     |     |      | 3.2      |
| 22   |      | 5.6  |      |      |     |     |      | 3.1      |
| 23   |      | 5.0  |      |      |     |     |      | 3.1      |

Time: 120.0°W.  
Sweep: Manual operation.  
Median values.



Table 5 (Provisional Data)

The Pas, Manitoba (54.0°N, 101.0°W) May 1946

| Time | h'P2 | P'P2 | h'P1 | P'P1 | h'E | P'E | P2-M3000 |
|------|------|------|------|------|-----|-----|----------|
| 00   |      | 4.2  |      |      |     |     |          |
| 01   |      | 3.6  |      |      |     |     |          |
| 02   |      | 3.5  |      |      |     |     |          |
| 03   |      | 3.9  |      |      |     |     |          |
| 04   |      | 3.8  |      |      |     |     |          |
| 05   |      | 3.6  |      |      |     |     |          |
| 06   |      | 4.4  |      |      |     |     |          |
| 07   |      | 4.5  |      |      |     |     |          |
| 08   |      | 4.9  |      |      |     |     |          |
| 09   |      | 4.9  |      |      |     |     |          |
| 10   |      | 5.4  |      |      |     |     |          |
| 11   |      | 5.7  |      |      |     |     |          |
| 12   |      | 5.2  |      |      |     |     |          |
| 13   |      | 5.6  |      |      |     |     |          |
| 14   |      | 6.0  |      |      |     |     |          |
| 15   |      | 5.9  |      |      |     |     |          |
| 16   |      | 5.9  |      |      |     |     |          |
| 17   |      | 6.0  |      |      |     |     |          |
| 18   |      | 5.7  |      |      |     |     |          |
| 19   |      | 5.7  |      |      |     |     |          |
| 20   |      | 5.6  |      |      |     |     |          |
| 21   |      | 5.4  |      |      |     |     |          |
| 22   |      | 5.6  |      |      |     |     |          |
| 23   |      | 4.8  |      |      |     |     |          |

Time: 90.0°W.

Median values.

Data for approximately fifteen days around the middle of the month.

Table 6 (Provisional Data)

St. John's Newfoundland (47.7°N, 52.7°W) May 1946

| Time | h'P2 | P'P2 | h'P1 | P'P1 | h'E | P'E | P2-M3000 |
|------|------|------|------|------|-----|-----|----------|
| 00   |      | 5.5  |      |      |     |     | 2.9      |
| 01   |      | 5.0  |      |      |     |     | 3.2      |
| 02   |      | 4.8  |      |      |     |     | 3.0      |
| 03   |      | 4.5  |      |      |     |     | 3.1      |
| 04   |      | 4.1  |      |      |     |     | 3.1      |
| 05   |      | 4.3  |      |      |     |     | 3.2      |
| 06   |      | 4.9  |      |      |     |     | 3.4      |
| 07   |      | 4.8  |      |      |     |     | 3.4      |
| 08   |      | 5.0  |      |      |     |     | 3.4      |
| 09   |      | 5.6  |      |      |     |     | 3.3      |
| 10   |      | 6.0  |      |      |     |     | 3.5      |
| 11   |      | 6.1  |      |      |     |     | 3.2      |
| 12   |      | 6.3  |      |      |     |     | 3.2      |
| 13   |      | 6.5  |      |      |     |     | 3.3      |
| 14   |      | 6.5  |      |      |     |     | 3.1      |
| 15   |      | 6.8  |      |      |     |     | 3.2      |
| 16   |      | 7.1  |      |      |     |     | 3.2      |
| 17   |      | 7.2  |      |      |     |     | 3.3      |
| 18   |      | 7.1  |      |      |     |     | 3.2      |
| 19   |      | 7.1  |      |      |     |     | 3.2      |
| 20   |      | 7.4  |      |      |     |     | 3.3      |
| 21   |      | 6.9  |      |      |     |     | 3.3      |
| 22   |      | 6.2  |      |      |     |     | 3.1      |
| 23   |      | 5.5  |      |      |     |     | 3.1      |

Time: 52.5°W.

Sweep: Manual operation.

Median values.

Table 7 (Provisional Data)

Ottawa, Canada (45.5°N, 75.6°W) May 1946

| Time | h'P2 | P'P2 | h'P1 | P'P1 | h'E | P'E | P2-M3000 |
|------|------|------|------|------|-----|-----|----------|
| 00   |      | 4.0  |      |      |     |     | 2.7      |
| 01   |      | 3.9  |      |      |     |     | 2.9      |
| 02   |      | 3.5  |      |      |     |     | 2.9      |
| 03   |      | 3.4  |      |      |     |     | 3.0      |
| 04   |      | 3.3  |      |      |     |     | 2.9      |
| 05   |      | 3.9  |      |      |     |     | 2.9      |
| 06   |      | 4.4  |      |      |     |     | 2.9      |
| 07   |      | 5.0  |      |      |     |     | 2.8      |
| 08   |      | 5.4  |      |      |     |     | 2.8      |
| 09   |      | 5.4  |      |      |     |     | 2.7      |
| 10   |      | 5.3  |      |      |     |     | 2.7      |
| 11   |      | 5.6  |      |      |     |     | 2.8      |
| 12   |      | 5.8  |      |      |     |     | 2.7      |
| 13   |      | 5.9  |      |      |     |     | 2.6      |
| 14   |      | 5.8  |      |      |     |     | 2.6      |
| 15   |      | 6.0  |      |      |     |     | 2.6      |
| 16   |      | 6.2  |      |      |     |     | 2.6      |
| 17   |      | 6.3  |      |      |     |     | 2.7      |
| 18   |      | 6.3  |      |      |     |     | 2.7      |
| 19   |      | 6.1  |      |      |     |     | 2.8      |
| 20   |      | 6.0  |      |      |     |     | 2.8      |
| 21   |      | 5.9  |      |      |     |     | 2.7      |
| 22   |      | 5.4  |      |      |     |     | 2.7      |
| 23   |      | 4.8  |      |      |     |     | 2.8      |

Time: 75.0°W.

Sweep: 1.95 Mc to 13.5 Mc. Manual operation.

Median values.

Table 8 (Provisional Data)

Boston, Massachusetts (42.4°N, 71.2°W) May 1946

| Time | h'P2 | P'P2 | h'P1 | P'P1 | h'E | P'E | P2-M3000 |
|------|------|------|------|------|-----|-----|----------|
| 00   |      | 5.1  |      |      |     |     | 2.6      |
| 01   |      | 4.7  |      |      |     |     | 2.6      |
| 02   |      | 4.5  |      |      |     |     | 2.7      |
| 03   |      | 4.0  |      |      |     |     | 2.8      |
| 04   |      | 3.7  |      |      |     |     | 2.9      |
| 05   |      | 4.2  |      |      |     |     | 3.0      |
| 06   |      | 4.5  |      |      |     |     | 2.9      |
| 07   |      | 5.3  |      |      |     |     | 2.9      |
| 08   |      | 6.1  |      |      |     |     | 3.0      |
| 09   |      | 6.1  |      |      |     |     | 2.8      |
| 10   |      | 6.3  |      |      |     |     | 2.9      |
| 11   |      | 6.4  |      |      |     |     | 2.7      |
| 12   |      | 6.4  |      |      |     |     | 2.7      |
| 13   |      | 7.2  |      |      |     |     | 2.7      |
| 14   |      | 7.4  |      |      |     |     | 2.7      |
| 15   |      | 7.3  |      |      |     |     | 2.7      |
| 16   |      | 6.6  |      |      |     |     | 2.9      |
| 17   |      | 6.6  |      |      |     |     | 2.8      |
| 18   |      | 7.0  |      |      |     |     | 2.9      |
| 19   |      | 6.9  |      |      |     |     | 2.9      |
| 20   |      | 6.9  |      |      |     |     | 2.9      |
| 21   |      | 6.5  |      |      |     |     | 2.7      |
| 22   |      | 6.0  |      |      |     |     | 2.7      |
| 23   |      | 5.6  |      |      |     |     | 2.7      |

Time: 75.0°W.

Sweep: 0.65 Mc to 13.75 Mc in one minute.

Median values.

Table 9 (Provisional Data)

San Francisco, California (37.4°N, 122.2°W)

May 1946

| Time | h <sup>1</sup> P2 | P <sup>2</sup> P2 | h <sup>1</sup> P1 | P <sup>2</sup> P1 | h <sup>1</sup> S | P <sup>2</sup> S | h <sup>2</sup> S | P <sup>2</sup> S |
|------|-------------------|-------------------|-------------------|-------------------|------------------|------------------|------------------|------------------|
| 00   |                   |                   |                   |                   |                  |                  |                  | 2.6              |
| 01   | 5.1               |                   |                   |                   |                  |                  |                  | 2.7              |
| 02   | 4.9               |                   |                   |                   |                  |                  |                  | 2.7              |
| 03   | 4.8               |                   |                   |                   |                  |                  |                  | 2.7              |
| 04   | 4.7               |                   |                   |                   |                  |                  |                  | 2.7              |
| 05   | 4.2               |                   |                   |                   |                  |                  |                  | 2.8              |
| 06   | 4.3               |                   |                   |                   |                  |                  |                  | 2.8              |
| 07   | 5.4               |                   |                   |                   |                  |                  |                  | 2.8              |
| 08   | 6.0               |                   |                   |                   |                  |                  |                  | 2.7              |
| 09   | 6.7               |                   |                   |                   |                  |                  |                  | 2.8              |
| 10   | 7.1               |                   |                   |                   |                  |                  |                  | 2.8              |
| 11   | 6.9               |                   |                   |                   |                  |                  |                  | 2.7              |
| 12   | 7.6               |                   |                   |                   |                  |                  |                  | 2.7              |
| 13   | 7.4               |                   |                   |                   |                  |                  |                  | 2.7              |
| 14   | 7.6               |                   |                   |                   |                  |                  |                  | 2.8              |
| 15   | 7.8               |                   |                   |                   |                  |                  |                  | 2.8              |
| 16   | 7.6               |                   |                   |                   |                  |                  |                  | 2.9              |
| 17   | 7.6               |                   |                   |                   |                  |                  |                  | 2.9              |
| 18   | 7.4               |                   |                   |                   |                  |                  |                  | 3.0              |
| 19   | 7.1               |                   |                   |                   |                  |                  |                  | 3.0              |
| 20   | 6.8               |                   |                   |                   |                  |                  |                  | 3.0              |
| 21   | 6.6               |                   |                   |                   |                  |                  |                  | 2.8              |
| 22   | 6.2               |                   |                   |                   |                  |                  |                  | 2.8              |
| 23   | 5.3               |                   |                   |                   |                  |                  |                  | 2.6              |

Time: 120.0°W.

Sweep: 0.8 Mc to 12.0 Mc in six minutes. Record centered on the hour.

Median values.

Table 11 (Provisional Data)

Mani, Hawaii (20.8°N, 156.5°W)

May 1946

| Time | h <sup>1</sup> P2 | P <sup>2</sup> P2 | h <sup>1</sup> P1 | P <sup>2</sup> P1 | h <sup>1</sup> S | P <sup>2</sup> S | h <sup>2</sup> S | P <sup>2</sup> S |
|------|-------------------|-------------------|-------------------|-------------------|------------------|------------------|------------------|------------------|
| 00   |                   |                   |                   |                   |                  |                  |                  | 2.8              |
| 01   | 7.8               |                   |                   |                   |                  |                  |                  | 2.9              |
| 02   | 7.6               |                   |                   |                   |                  |                  |                  | 2.8              |
| 03   | 7.4               |                   |                   |                   |                  |                  |                  | 2.8              |
| 04   | 6.1               |                   |                   |                   |                  |                  |                  | 2.8              |
| 05   | 5.9               |                   |                   |                   |                  |                  |                  | 2.8              |
| 06   | 5.5               |                   |                   |                   |                  |                  |                  | 2.8              |
| 07   | 5.6               |                   |                   |                   |                  |                  |                  | 2.8              |
| 08   | 6.2               |                   |                   |                   |                  |                  |                  | 2.8              |
| 09   | 8.0               |                   |                   |                   |                  |                  |                  | 2.8              |
| 10   | 9.0               |                   |                   |                   |                  |                  |                  | 2.6              |
| 11   | 10.1              |                   |                   |                   |                  |                  |                  | 2.5              |
| 12   | 11.0              |                   |                   |                   |                  |                  |                  | 2.6              |
| 13   | 11.6              |                   |                   |                   |                  |                  |                  | 2.6              |
| 14   | 12.1              |                   |                   |                   |                  |                  |                  | 2.6              |
| 15   | 12.2              |                   |                   |                   |                  |                  |                  | 2.7              |
| 16   | 12.6              |                   |                   |                   |                  |                  |                  | 2.8              |
| 17   | 13.1              |                   |                   |                   |                  |                  |                  | 2.9              |
| 18   | 12.9              |                   |                   |                   |                  |                  |                  | 2.9              |
| 19   | 11.8              |                   |                   |                   |                  |                  |                  | 3.0              |
| 20   | 11.4              |                   |                   |                   |                  |                  |                  | 2.9              |
| 21   | 9.9               |                   |                   |                   |                  |                  |                  | 2.8              |
| 22   | 8.9               |                   |                   |                   |                  |                  |                  | 2.8              |
| 23   | 8.4               |                   |                   |                   |                  |                  |                  | 2.8              |
| 24   | 8.0               |                   |                   |                   |                  |                  |                  | 2.7              |

Time: 150.0°W.

Sweep: 2.2 Mc to 16.0 Mc in one minute.

Median values.

Table 10 (Provisional Data)

Baton Rouge, Louisiana (30.5°N, 91.2°W)

May 1946

| Time | h <sup>1</sup> P2 | P <sup>2</sup> P2 | h <sup>1</sup> P1 | P <sup>2</sup> P1 | h <sup>1</sup> S | P <sup>2</sup> S | h <sup>2</sup> S | P <sup>2</sup> S |
|------|-------------------|-------------------|-------------------|-------------------|------------------|------------------|------------------|------------------|
| 00   |                   |                   |                   |                   |                  |                  |                  | 5.3              |
| 01   |                   |                   |                   |                   |                  |                  |                  | 5.3              |
| 02   |                   |                   |                   |                   |                  |                  |                  | 5.1              |
| 03   |                   |                   |                   |                   |                  |                  |                  | 4.9              |
| 04   |                   |                   |                   |                   |                  |                  |                  | 4.7              |
| 05   |                   |                   |                   |                   |                  |                  |                  | 4.3              |
| 06   |                   |                   |                   |                   |                  |                  |                  | 5.7              |
| 07   |                   |                   |                   |                   |                  |                  |                  | 5.6              |
| 08   |                   |                   |                   |                   |                  |                  |                  | 5.8              |
| 09   |                   |                   |                   |                   |                  |                  |                  | 6.7              |
| 10   |                   |                   |                   |                   |                  |                  |                  | 7.2              |
| 11   |                   |                   |                   |                   |                  |                  |                  | 8.0              |
| 12   |                   |                   |                   |                   |                  |                  |                  | 8.1              |
| 13   |                   |                   |                   |                   |                  |                  |                  | 8.4              |
| 14   |                   |                   |                   |                   |                  |                  |                  | 9.1              |
| 15   |                   |                   |                   |                   |                  |                  |                  | 8.5              |
| 16   |                   |                   |                   |                   |                  |                  |                  | 8.2              |
| 17   |                   |                   |                   |                   |                  |                  |                  | 8.2              |
| 18   |                   |                   |                   |                   |                  |                  |                  | 8.1              |
| 19   |                   |                   |                   |                   |                  |                  |                  | 7.8              |
| 20   |                   |                   |                   |                   |                  |                  |                  | 6.8              |
| 21   |                   |                   |                   |                   |                  |                  |                  | 5.9              |
| 22   |                   |                   |                   |                   |                  |                  |                  | 5.6              |
| 23   |                   |                   |                   |                   |                  |                  |                  | 5.3              |

Time: 90.0°W.

Sweep: 1.9 Mc to 9.8 Mc in three minutes, thirty seconds.

Median values.

Table 12 (Provisional Data)

Trinidad, Brit. West Indies (10.6°N, 61.2°W)

May 1946

| Time | h <sup>1</sup> P2 | P <sup>2</sup> P2 | h <sup>1</sup> P1 | P <sup>2</sup> P1 | h <sup>1</sup> S | P <sup>2</sup> S | h <sup>2</sup> S | P <sup>2</sup> S |
|------|-------------------|-------------------|-------------------|-------------------|------------------|------------------|------------------|------------------|
| 00   |                   |                   |                   |                   |                  |                  |                  | 3.0              |
| 01   | 260               | 9.8               |                   |                   |                  |                  |                  | 3.0              |
| 02   | 250               | 8.8               |                   |                   |                  |                  |                  | 3.0              |
| 03   | 250               | 6.5               |                   |                   |                  |                  |                  | 3.1              |
| 04   | 240               | 7.6               |                   |                   |                  |                  |                  | 3.0              |
| 05   | 260               | 6.2               |                   |                   |                  |                  |                  | 3.0              |
| 06   | 260               | 5.8               |                   |                   |                  |                  |                  | 3.0              |
| 07   | 230               | 7.4               |                   |                   |                  |                  |                  | 3.0              |
| 08   | 260               | 6.4               |                   |                   |                  |                  |                  | 3.1              |
| 09   | 240               | 9.1               |                   |                   |                  |                  |                  | 2.8              |
| 10   | 320               | 10.3              |                   |                   |                  |                  |                  | 2.7              |
| 11   | 330               | 11.3              |                   |                   |                  |                  |                  | 2.8              |
| 12   | 330               | 11.5              |                   |                   |                  |                  |                  | 2.8              |
| 13   | 320               | 12.5              |                   |                   |                  |                  |                  | 2.9              |
| 14   | 320               | 12.6              |                   |                   |                  |                  |                  | 2.9              |
| 15   | 320               | 12.1              |                   |                   |                  |                  |                  | 2.9              |
| 16   | 310               | 12.5              |                   |                   |                  |                  |                  | 2.8              |
| 17   | 270               | 11.8              |                   |                   |                  |                  |                  | 2.8              |
| 18   | 270               | 10.9              |                   |                   |                  |                  |                  | 2.8              |
| 19   | 270               | 10.8              |                   |                   |                  |                  |                  | 2.8              |
| 20   | 290               | 11.0              |                   |                   |                  |                  |                  | 2.8              |
| 21   | 280               | 10.8              |                   |                   |                  |                  |                  | 2.8              |
| 22   | 280               | 10.8              |                   |                   |                  |                  |                  | 2.8              |
| 23   | 270               | 11.0              |                   |                   |                  |                  |                  | 2.9              |

Time: 60.0°W.

Sweep: Manual operation.

Median values.



Table 13 (Provisional Data)

Feiping, China (36.0°N, 116.5°E) \* April 1946

| Time | h <sub>1</sub> F <sub>2</sub> | F <sub>2</sub> F <sub>2</sub> | h <sub>1</sub> F <sub>1</sub> | F <sub>0</sub> F <sub>1</sub> | h <sub>1</sub> E | F <sub>0</sub> E | F <sub>2</sub> S | F <sub>2</sub> M3000 |
|------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|------------------|------------------|------------------|----------------------|
| 00   |                               | 6.1                           |                               |                               |                  |                  |                  |                      |
| 01   |                               | 6.1                           |                               |                               |                  |                  |                  |                      |
| 02   |                               | 5.6                           |                               |                               |                  |                  |                  |                      |
| 03   |                               | 5.0                           |                               |                               |                  |                  |                  |                      |
| 04   |                               | 4.7                           |                               |                               |                  |                  |                  |                      |
| 05   |                               | 4.6                           |                               |                               |                  |                  |                  |                      |
| 06   |                               | 7.1                           |                               |                               |                  |                  |                  |                      |
| 07   |                               | 8.1                           |                               |                               |                  |                  |                  |                      |
| 08   |                               | 8.8                           |                               |                               |                  |                  |                  |                      |
| 09   |                               | 8.5                           |                               |                               |                  |                  |                  |                      |
| 10   |                               | 10.0                          |                               |                               |                  |                  |                  |                      |
| 11   |                               | 10.7                          |                               |                               |                  |                  |                  |                      |
| 12   |                               | 10.2                          |                               |                               |                  |                  |                  |                      |
| 13   |                               | 10.9                          |                               |                               |                  |                  |                  |                      |
| 14   |                               | 10.8                          |                               |                               |                  |                  |                  |                      |
| 15   |                               | 9.7                           |                               |                               |                  |                  |                  |                      |
| 16   |                               | 9.1                           |                               |                               |                  |                  |                  |                      |
| 17   |                               | 9.0                           |                               |                               |                  |                  |                  |                      |
| 18   |                               | 8.5                           |                               |                               |                  |                  |                  |                      |
| 19   |                               | 8.0                           |                               |                               |                  |                  |                  |                      |
| 20   |                               | 7.7                           |                               |                               |                  |                  |                  |                      |
| 21   |                               | 7.3                           |                               |                               |                  |                  |                  |                      |
| 22   |                               | 7.0                           |                               |                               |                  |                  |                  |                      |
| 23   |                               | 6.6                           |                               |                               |                  |                  |                  |                      |

Time: Unknown.  
Median values.  
\* Approximate

Table 15 (Provisional Data)

Guan X. (13.5°N, 144.0°E) April 1946

| Time | h <sub>1</sub> F <sub>2</sub> | F <sub>2</sub> F <sub>2</sub> | h <sub>1</sub> F <sub>1</sub> | F <sub>0</sub> F <sub>1</sub> | h <sub>1</sub> E | F <sub>0</sub> E | F <sub>2</sub> S | F <sub>2</sub> M3000 |
|------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|------------------|------------------|------------------|----------------------|
| 00   | 260                           | 12.6                          |                               |                               |                  |                  |                  | 3.1                  |
| 01   | 250                           | 12.0                          |                               |                               |                  |                  |                  | 3.3                  |
| 02   | 230                           | 10.0                          |                               |                               |                  |                  |                  | 3.2                  |
| 03   | 250                           | 7.8                           |                               |                               |                  |                  |                  | 3.1                  |
| 04   | 250                           | 7.0                           |                               |                               |                  |                  | 2.2              | 3.2                  |
| 05   | 240                           | 5.4                           |                               |                               |                  |                  | 2.5              | 3.1                  |
| 06   | 250                           | 5.0                           |                               |                               |                  |                  | 2.5              | 3.1                  |
| 07   | 250                           | 8.2                           |                               |                               |                  | 2.6              |                  | 3.3                  |
| 08   | 290                           | 10.2                          |                               |                               |                  | 3.3              |                  | 3.1                  |
| 09   | 260                           | 11.0                          |                               |                               |                  | 3.6              |                  | 2.8                  |
| 10   | 290                           | 11.4                          |                               |                               | 5.0              | 5.9              |                  | 2.5                  |
| 11   | 300                           | 11.3                          |                               |                               | 5.5              | 4.6              |                  | 2.4                  |
| 12   | 320                           | 11.3                          |                               |                               | 5.2              | 5.0              |                  | 2.4                  |
| 13   | 310                           | 11.7                          |                               |                               | 5.6              |                  |                  | 2.5                  |
| 14   | 310                           | 12.4                          |                               |                               | 5.5              |                  |                  | 2.5                  |
| 15   | 300                           | 13.5                          |                               |                               | 5.2              |                  |                  | 2.5                  |
| 16   | 290                           | 14.0                          |                               |                               | 4.8              |                  |                  | 2.6                  |
| 17   | 270                           | 14.3                          |                               |                               |                  |                  |                  | 2.6                  |
| 18   | 260                           | 13.8                          |                               |                               |                  | 3.5              | 3.8              | 2.6                  |
| 19   | 300                           | 12.9                          |                               |                               |                  | 3.1              | 3.6              | 2.5                  |
| 20   | 350                           | 12.5                          |                               |                               |                  |                  | 2.2              | 2.5                  |
| 21   | 320                           | 11.3                          |                               |                               |                  |                  |                  | 2.6                  |
| 22   | 290                           | 12.3                          |                               |                               |                  |                  | 2.0              | 2.7                  |
| 23   | 270                           | 12.7                          |                               |                               |                  |                  | 1.7              | 2.9                  |

Time: 150.0°E.  
Sweep: Manual operation.  
Average values.

Table 14 (Provisional Data)

Chungking, China (29.4°N, 106.0°E) April 1946

| Time | h <sub>1</sub> F <sub>2</sub> | F <sub>2</sub> F <sub>2</sub> | h <sub>1</sub> F <sub>1</sub> | F <sub>0</sub> F <sub>1</sub> | h <sub>1</sub> E | F <sub>0</sub> E | F <sub>2</sub> S | F <sub>2</sub> M3000 |
|------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|------------------|------------------|------------------|----------------------|
| 00   |                               | 10.6                          |                               |                               |                  |                  |                  | 3.3                  |
| 01   |                               | 8.9                           |                               |                               |                  |                  |                  | 3.2                  |
| 02   |                               | 6.0                           |                               |                               |                  |                  |                  | 3.2                  |
| 03   |                               | 6.5                           |                               |                               |                  |                  |                  | 3.2                  |
| 04   |                               | 5.5                           |                               |                               |                  |                  |                  | 3.1                  |
| 05   |                               | 5.5                           |                               |                               |                  |                  |                  | 3.1                  |
| 06   |                               | 7.1                           |                               |                               |                  |                  |                  | 3.0                  |
| 07   |                               | 8.2                           |                               |                               |                  |                  |                  | 3.0                  |
| 08   |                               | 10.2                          |                               |                               |                  |                  |                  | 3.0                  |
| 09   |                               | 10.8                          |                               |                               |                  |                  |                  | 3.1                  |
| 10   |                               | 12.2                          |                               |                               |                  |                  |                  | 3.1                  |
| 11   |                               | 12.5                          |                               |                               |                  |                  |                  | 3.1                  |
| 12   |                               | 13.7                          |                               |                               |                  |                  |                  | 3.1                  |
| 13   |                               | 13.8                          |                               |                               |                  |                  |                  | 3.2                  |
| 14   |                               | 13.6                          |                               |                               |                  |                  |                  | 3.2                  |
| 15   |                               | 13.6                          |                               |                               |                  |                  |                  | 3.3                  |
| 16   |                               | 13.1                          |                               |                               |                  |                  |                  | 3.1                  |
| 17   |                               | 12.6                          |                               |                               |                  |                  |                  | 3.1                  |
| 18   |                               | 12.4                          |                               |                               |                  |                  |                  | 3.1                  |
| 19   |                               | 11.0                          |                               |                               |                  |                  |                  | 3.1                  |
| 20   |                               | 9.9                           |                               |                               |                  |                  |                  | 3.1                  |
| 21   |                               | 8.8                           |                               |                               |                  |                  |                  | 3.1                  |
| 22   |                               | 8.9                           |                               |                               |                  |                  |                  | 3.1                  |
| 23   |                               | 9.6                           |                               |                               |                  |                  |                  | 3.1                  |

Time: 105.0°E.  
Sweep: 3.3 Mc to 12.3 Mc in fifteen minutes. Manual operation.  
Median values.

Table 16 (Provisional Data)

Leyte, Philippine Is. (11.0°N, 125.0°E) April 1946

| Time | h <sub>1</sub> F <sub>2</sub> | F <sub>2</sub> F <sub>2</sub> | h <sub>1</sub> F <sub>1</sub> | F <sub>0</sub> F <sub>1</sub> | h <sub>1</sub> E | F <sub>0</sub> E | F <sub>2</sub> S | F <sub>2</sub> M3000 |
|------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|------------------|------------------|------------------|----------------------|
| 00   |                               | 11.3                          |                               |                               |                  |                  |                  | 3.2                  |
| 01   |                               | 11.1                          |                               |                               |                  |                  |                  | 3.2                  |
| 02   |                               | 8.6                           |                               |                               |                  |                  |                  | 3.1                  |
| 03   |                               | 7.3                           |                               |                               |                  |                  |                  | 3.1                  |
| 04   |                               | 6.1                           |                               |                               |                  |                  |                  | 3.1                  |
| 05   |                               | 5.1                           |                               |                               |                  |                  |                  | 3.0                  |
| 06   |                               | 4.6                           |                               |                               |                  |                  |                  | 3.0                  |
| 07   |                               | 7.7                           |                               |                               |                  | 2.1              |                  | 3.0                  |
| 08   |                               | 10.1                          |                               |                               |                  | 3.0              |                  | 2.9                  |
| 09   |                               | 11.4                          |                               |                               |                  | 3.4              |                  | 2.7                  |
| 10   |                               | 11.1                          |                               |                               |                  | 3.7              |                  | 2.4                  |
| 11   |                               | 10.4                          |                               |                               |                  | 3.9              |                  | 2.4                  |
| 12   |                               | 10.4                          |                               |                               |                  | 4.0              |                  | 2.4                  |
| 13   |                               | 10.9                          |                               |                               |                  | 4.0              |                  | 2.4                  |
| 14   |                               | 11.5                          |                               |                               |                  | 4.0              |                  | 2.4                  |
| 15   |                               | 12.2                          |                               |                               |                  | 3.9              |                  | 2.4                  |
| 16   |                               | 12.9                          |                               |                               |                  | 3.6              |                  | 2.5                  |
| 17   |                               | 13.4                          |                               |                               |                  | 3.3              |                  | 2.5                  |
| 18   |                               | 13.1                          |                               |                               |                  | 2.3              |                  | 2.5                  |
| 19   |                               | 12.6                          |                               |                               |                  |                  |                  | 2.4                  |
| 20   |                               | 10.9                          |                               |                               |                  |                  |                  | 2.3                  |
| 21   |                               | 11.3                          |                               |                               |                  |                  |                  | 2.3                  |
| 22   |                               | 13.2                          |                               |                               |                  |                  |                  | 2.5                  |
| 23   |                               | 11.8                          |                               |                               |                  |                  |                  | 2.8                  |

Time: 135.0°E.  
Sweep: Manual operation.  
Median values.

Table 17 (Provisional Data)

Barotonga I. (21.3°S, 159.8°W) April 1946

| Time | h'P2 | f'P2 | h'P1 | f'P1 | h'E | f'E | Ta | P2-M3000 |
|------|------|------|------|------|-----|-----|----|----------|
| 00   |      | 7.8  |      |      |     |     |    | 3.1      |
| 01   |      | 6.9  |      |      |     |     |    | 3.1      |
| 02   |      | 5.9  |      |      |     |     |    | 2.9      |
| 03   |      | 5.1  |      |      |     |     |    | 3.0      |
| 04   |      | 4.6  |      |      |     |     |    | 2.8      |
| 05   |      | 4.5  |      |      |     |     |    | 2.8      |
| 06   |      | 4.9  |      |      |     |     |    | 2.8      |
| 07   |      | 8.6  |      |      |     |     |    | 3.3      |
| 08   |      | 11.0 |      |      |     |     |    | 3.2      |
| 09   |      | 11.5 |      |      |     |     |    | 3.2      |
| 10   |      | 12.5 |      |      |     |     |    | 3.1      |
| 11   |      | 12.5 |      |      |     |     |    | 3.0      |
| 12   |      | 12.6 |      |      |     |     |    | 3.0      |
| 13   |      | 13.8 |      |      |     |     |    | 3.0      |
| 14   |      | 14.0 |      |      |     |     |    | 3.0      |
| 15   |      | 13.5 |      |      |     |     |    | 2.9      |
| 16   |      | 12.5 |      |      |     |     |    | 3.0      |
| 17   |      | 12.4 |      |      |     |     |    | 3.0      |
| 18   |      | 12.0 |      |      |     |     |    | 3.1      |
| 19   |      | 11.2 |      |      |     |     |    | 3.1      |
| 20   |      | 10.1 |      |      |     |     |    | 2.9      |
| 21   |      | 9.4  |      |      |     |     |    | 2.9      |
| 22   |      | 8.6  |      |      |     |     |    | 3.0      |
| 23   |      | 7.9  |      |      |     |     |    | 3.0      |

Time: 157.50W.  
Sweep: 2.0 Mc to 16.0 Mc. Manual operation.  
Median values.

Table 19 (Provisional Data)

Watheroo, W. Australia (30.3°S, 115.9°E) April 1946

| Time | h'P2 | f'P2 | h'P1 | f'P1 | h'E | f'E | Ta | P2-M3000 |
|------|------|------|------|------|-----|-----|----|----------|
| 00   |      | 5.0  |      |      |     |     |    | 2.8      |
| 01   |      | 4.9  |      |      |     |     |    | 2.8      |
| 02   |      | 4.8  |      |      |     |     |    | 3.0      |
| 03   |      | 4.5  |      |      |     |     |    | 3.0      |
| 04   |      | 3.9  |      |      |     |     |    | 2.9      |
| 05   |      | 4.0  |      |      |     |     |    | 2.8      |
| 06   |      | 4.6  |      |      |     |     |    | 3.0      |
| 07   |      | 7.3  |      |      |     |     |    | 3.3      |
| 08   |      | 8.9  |      |      |     |     |    | 3.3      |
| 09   |      | 9.7  |      |      |     |     |    | 3.2      |
| 10   |      | 10.8 |      |      |     |     |    | 3.2      |
| 11   |      | 10.8 |      |      |     |     |    | 3.1      |
| 12   |      | 11.1 |      |      |     |     |    | 3.0      |
| 13   |      | 11.3 |      |      |     |     |    | 3.0      |
| 14   |      | 10.1 |      |      |     |     |    | 3.0      |
| 15   |      | 11.0 |      |      |     |     |    | 3.0      |
| 16   |      | 10.7 |      |      |     |     |    | 3.1      |
| 17   |      | 9.7  |      |      |     |     |    | 3.1      |
| 18   |      | 8.5  |      |      |     |     |    | 3.1      |
| 19   |      | 7.1  |      |      |     |     |    | 3.0      |
| 20   |      | 6.5  |      |      |     |     |    | 3.0      |
| 21   |      | 5.7  |      |      |     |     |    | 3.0      |
| 22   |      | 5.3  |      |      |     |     |    | 2.8      |
| 23   |      | 4.9  |      |      |     |     |    | 2.8      |

Time: 120.00E.  
Sweep: 16.0 Mc to 0.5 Mc in fifteen minutes.  
Median values.

Table 18 (Provisional Data)

Kermadec Islands (29.2°S, 177.9°W) April 1946

| Time | h'P2 | f'P2 | h'P1 | f'P1 | h'E | f'E | Ta | P2-M3000 |
|------|------|------|------|------|-----|-----|----|----------|
| 00   |      |      |      |      |     |     |    |          |
| 01   |      |      |      |      |     |     |    |          |
| 02   |      |      |      |      |     |     |    |          |
| 03   |      |      |      |      |     |     |    |          |
| 04   |      |      |      |      |     |     |    |          |
| 05   |      |      |      |      |     |     |    |          |
| 06   |      |      |      |      |     |     |    |          |
| 07   |      |      |      |      |     |     |    |          |
| 08   |      |      |      |      |     |     |    |          |
| 09   |      |      |      |      |     |     |    |          |
| 10   |      |      |      |      |     |     |    |          |
| 11   |      |      |      |      |     |     |    |          |
| 12   |      |      |      |      |     |     |    |          |
| 13   |      |      |      |      |     |     |    |          |
| 14   |      |      |      |      |     |     |    |          |
| 15   |      |      |      |      |     |     |    |          |
| 16   |      |      |      |      |     |     |    |          |
| 17   |      |      |      |      |     |     |    |          |
| 18   |      |      |      |      |     |     |    |          |
| 19   |      |      |      |      |     |     |    |          |
| 20   |      |      |      |      |     |     |    |          |
| 21   |      |      |      |      |     |     |    |          |
| 22   |      |      |      |      |     |     |    |          |
| 23   |      |      |      |      |     |     |    |          |

Time: 180.00E.  
Sweep: 1.8 Mc to 12.0 Mc. Manual operation.  
Median values.

Table 20 (Provisional Data)

Robert, Tasmania (42.8°S, 147.4°E) April 1946

| Time | h'P2 | f'P2 | h'P1 | f'P1 | h'E | f'E | Ta | P2-M3000 |
|------|------|------|------|------|-----|-----|----|----------|
| 00   |      | 4.8  |      |      |     |     |    | 2.9      |
| 01   |      | 4.3  |      |      |     |     |    | 2.8      |
| 02   |      | 3.8  |      |      |     |     |    | 2.9      |
| 03   |      | 3.6  |      |      |     |     |    | 3.0      |
| 04   |      | 3.3  |      |      |     |     |    | 3.0      |
| 05   |      | 2.8  |      |      |     |     |    | 3.1      |
| 06   |      | 3.2  |      |      |     |     |    | 3.1      |
| 07   |      | 5.5  |      |      |     |     |    | 3.3      |
| 08   |      | 7.0  |      |      |     |     |    | 3.3      |
| 09   |      | 8.2  |      |      |     |     |    | 3.2      |
| 10   |      | 9.0  |      |      |     |     |    | 3.2      |
| 11   |      | 9.8  |      |      |     |     |    | 3.1      |
| 12   |      | 10.3 |      |      |     |     |    | 3.1      |
| 13   |      | 10.7 |      |      |     |     |    | 3.1      |
| 14   |      | 10.3 |      |      |     |     |    | 3.1      |
| 15   |      | 10.2 |      |      |     |     |    | 3.1      |
| 16   |      | 10.0 |      |      |     |     |    | 3.1      |
| 17   |      | 9.6  |      |      |     |     |    | 3.1      |
| 18   |      | 8.5  |      |      |     |     |    | 3.1      |
| 19   |      | 7.4  |      |      |     |     |    | 3.0      |
| 20   |      | 6.2  |      |      |     |     |    | 3.0      |
| 21   |      | 5.5  |      |      |     |     |    | 3.0      |
| 22   |      | 5.2  |      |      |     |     |    | 2.9      |
| 23   |      | 5.2  |      |      |     |     |    | 2.9      |

Time: 150.00E.  
Sweep: 1.0 Mc to 13.0 Mc in one minute, fifty-five seconds.  
Median values.



Table 21 (Provisional Data)

April 1946

Kermadec Islands (22.3°S, 178.5°E)

| Time | h'F2 | f'F2 | h'F1 | f'F1 | h'E | f'F0 | f's |
|------|------|------|------|------|-----|------|-----|
| 00   | 280  | 5.5  |      |      |     |      |     |
| 01   | 27   | 5.5  |      |      |     |      |     |
| 02   | 270  | 5.2  |      |      |     |      |     |
| 03   | 270  | 4.8  |      |      |     |      |     |
| 04   | 260  | 4.2  |      |      |     |      |     |
| 05   | 250  | 3.6  |      |      |     |      |     |
| 06   | 260  | 3.6  |      |      |     |      |     |
| 07   | 240  | 5.3  |      |      |     |      |     |
| 08   | 240  | 7.8  |      |      |     |      |     |
| 09   | 240  | 9.0  |      |      |     |      |     |
| 10   | 250  | 9.5  |      |      |     |      |     |
| 11   | 250  | 10.2 |      |      |     |      |     |
| 12   | 260  | 10.8 |      |      |     |      |     |
| 13   | 260  | 11.0 |      |      |     |      |     |
| 14   | 260  | 10.9 |      |      |     |      |     |
| 15   | 260  | 10.4 |      |      |     |      |     |
| 16   | 240  | 10.0 |      |      |     |      |     |
| 17   | 240  | 9.7  |      |      |     |      |     |
| 18   | 230  | 8.9  |      |      |     |      |     |
| 19   | 240  | 7.2  |      |      |     |      |     |
| 20   | 260  | 6.6  |      |      |     |      |     |
| 21   | 250  | 5.6  |      |      |     |      |     |
| 22   | 270  | 5.8  |      |      |     |      |     |
| 23   | 270  | 5.4  |      |      |     |      |     |

Time: 172.5°E.  
Sweep: 1.0 Mc to 13.0 Mc. Automatic.  
Median values.

Table 22 (Provisional Data)

March 1946

Kermadec Islands (22.3°S, 178.5°E)

| Time | h'F2 | f'F2 | h'F1 | f'F1 | h'E | f'F0 | f's |
|------|------|------|------|------|-----|------|-----|
| 00   |      | 5.5  |      |      |     |      | 2.7 |
| 01   |      | 5.2  |      |      |     |      | 2.7 |
| 02   |      | 4.8  |      |      |     |      | 2.8 |
| 03   |      | 4.5  |      |      |     |      | 2.8 |
| 04   |      | 4.1  |      |      |     |      | 2.8 |
| 05   |      | 4.0  |      |      |     |      | 3.0 |
| 06   |      | 4.9  |      |      |     |      | 3.2 |
| 07   |      | 6.7  |      |      |     |      | 3.1 |
| 08   |      | 7.2  |      |      |     |      | 3.0 |
| 09   |      | 8.4  |      |      |     |      | 3.0 |
| 10   |      | 9.1  |      |      |     |      | 2.9 |
| 11   |      | 9.7  |      |      |     |      | 2.9 |
| 12   |      | 10.0 |      |      |     |      | 2.8 |
| 13   |      | 10.2 |      |      |     |      | 2.8 |
| 14   |      | 10.1 |      |      |     |      | 2.9 |
| 15   |      | 9.8  |      |      |     |      | 2.9 |
| 16   |      | 9.5  |      |      |     |      | 3.0 |
| 17   |      | 9.0  |      |      |     |      | 3.0 |
| 18   |      | 8.7  |      |      |     |      | 3.0 |
| 19   |      | 7.9  |      |      |     |      | 2.9 |
| 20   |      | 7.0  |      |      |     |      | 2.8 |
| 21   |      | 6.4  |      |      |     |      | 2.8 |
| 22   |      | 5.9  |      |      |     |      | 2.7 |
| 23   |      | 5.6  |      |      |     |      | 2.7 |

Time: Local.  
Sweep: 16.0 Mc to 0.5 Mc in fifteen minutes.  
Median values.

Table 22 (Provisional Data)

March 1946

Kermadec Islands (22.3°S, 177.9°E)

| Time | h'F2 | f'F2 | h'F1 | f'F1 | h'E | f'F0 | f's |
|------|------|------|------|------|-----|------|-----|
| 00   | 315  | 7.3  |      |      |     |      | 2.6 |
| 01   |      |      |      |      |     |      |     |
| 02   |      |      |      |      |     |      |     |
| 03   | 315  | 6.4  |      |      |     |      | 2.5 |
| 04   |      |      |      |      |     |      |     |
| 05   | 300  | 5.8  |      |      |     |      | 2.6 |
| 06   | 280  | 5.2  |      |      |     |      | 2.8 |
| 07   | 275  | 5.0  |      |      |     |      | 3.0 |
| 08   | 275  | 10.4 |      |      |     |      | 3.0 |
| 09   | 280  | 10.4 |      |      |     |      | 2.9 |
| 10   | 300  | 10.8 |      |      |     |      | 2.9 |
| 11   | 310  | 11.2 |      |      |     |      | 2.8 |
| 12   | 320  | 9    |      |      |     |      | 2.8 |
| 13   | 300  | 9    |      |      |     |      | 2.8 |
| 14   | 325  | 11.3 |      |      |     |      | 2.7 |
| 15   | 320  | 10.8 |      |      |     |      | 2.8 |
| 16   | 305  | 10.4 |      |      |     |      | 2.7 |
| 17   | 300  | 10.2 |      |      |     |      | 2.6 |
| 18   | 275  | 9.4  |      |      |     |      | 2.8 |
| 19   | 275  | 8.4  |      |      |     |      | 2.6 |
| 20   | 300  | 8.2  |      |      |     |      | 2.6 |
| 21   | 320  | 8.0  |      |      |     |      | 2.5 |
| 22   |      |      |      |      |     |      |     |
| 23   |      |      |      |      |     |      |     |

Time: 180.0°E.  
Sweep: 1.8 Mc to 12.0 Mc. Manual operation.  
Median values.  
Revision of Table 16 in IRL-722.

Table 23 (Provisional Data)

March 1946

Kermadec Islands (22.3°S, 177.9°E)

| Time | h'F2 | f'F2 | h'F1 | f'F1 | h'E | f'F0 | f's |
|------|------|------|------|------|-----|------|-----|
| 00   |      | 5.4  |      |      |     |      | 2.9 |
| 01   |      | 5.2  |      |      |     |      | 2.9 |
| 02   |      | 4.9  |      |      |     |      | 2.9 |
| 03   |      | 4.3  |      |      |     |      | 3.0 |
| 04   |      | 3.6  |      |      |     |      | 3.0 |
| 05   |      | 3.2  |      |      |     |      | 3.2 |
| 06   |      | 4.1  |      |      |     |      | 3.3 |
| 07   |      | 5.6  |      |      |     |      | 3.2 |
| 08   |      | 5.2  |      |      |     |      | 3.2 |
| 09   |      | 7.1  |      |      |     |      | 3.1 |
| 10   |      | 7.7  |      |      |     |      | 3.1 |
| 11   |      | 8.5  |      |      |     |      | 3.0 |
| 12   |      | 8.6  |      |      |     |      | 3.0 |
| 13   |      | 8.9  |      |      |     |      | 3.0 |
| 14   |      | 9.1  |      |      |     |      | 3.0 |
| 15   |      | 9.0  |      |      |     |      | 3.0 |
| 16   |      | 8.9  |      |      |     |      | 3.0 |
| 17   |      | 8.6  |      |      |     |      | 3.0 |
| 18   |      | 8.5  |      |      |     |      | 3.0 |
| 19   |      | 8.2  |      |      |     |      | 2.8 |
| 20   |      | 7.2  |      |      |     |      | 2.8 |
| 21   |      | 6.4  |      |      |     |      | 2.8 |
| 22   |      | 5.0  |      |      |     |      | 2.8 |
| 23   |      | 5.7  |      |      |     |      | 2.8 |

Time: Local.  
Sweep: 1.0 Mc to 13.0 Mc in one minute, fifty-five seconds.  
Median values.

Table 26

May 1946

Washington, I.C. (35.00N, 7.10W)

| Time | H <sub>1</sub> F <sub>2</sub> | F <sub>2</sub> F <sub>2</sub> | H <sub>1</sub> F <sub>1</sub> | F <sub>2</sub> F <sub>1</sub> | H <sub>1</sub> E | F <sub>2</sub> E | F <sub>2</sub> -M <sub>3000</sub> |
|------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|------------------|------------------|-----------------------------------|
| 00   | 290                           | 5.3                           |                               |                               |                  |                  | 2.7                               |
| 01   | 290                           | 5.0                           |                               |                               |                  |                  | 2.7                               |
| 02   | 290                           | 4.6                           |                               |                               |                  |                  | 2.8                               |
| 03   | 290                           | 3.6                           |                               |                               |                  |                  | 2.8                               |
| 04   | 290                           | 3.6                           |                               |                               |                  |                  | 2.8                               |
| 05   | 290                           | 3.6                           |                               |                               |                  |                  | 2.8                               |
| 06   | 290                           | 4.6                           |                               |                               |                  |                  | 2.9                               |
| 07   | 290                           | 4.6                           |                               |                               |                  |                  | 2.9                               |
| 08   | 290                           | 4.6                           |                               |                               |                  |                  | 2.9                               |
| 09   | 290                           | 4.6                           |                               |                               |                  |                  | 2.9                               |
| 10   | 290                           | 4.6                           |                               |                               |                  |                  | 2.9                               |
| 11   | 290                           | 4.6                           |                               |                               |                  |                  | 2.9                               |
| 12   | 290                           | 4.6                           |                               |                               |                  |                  | 2.9                               |
| 13   | 290                           | 4.6                           |                               |                               |                  |                  | 2.9                               |
| 14   | 290                           | 4.6                           |                               |                               |                  |                  | 2.9                               |
| 15   | 290                           | 4.6                           |                               |                               |                  |                  | 2.9                               |
| 16   | 290                           | 4.6                           |                               |                               |                  |                  | 2.9                               |
| 17   | 290                           | 4.6                           |                               |                               |                  |                  | 2.9                               |
| 18   | 290                           | 4.6                           |                               |                               |                  |                  | 2.9                               |
| 19   | 290                           | 4.6                           |                               |                               |                  |                  | 2.9                               |
| 20   | 290                           | 4.6                           |                               |                               |                  |                  | 2.9                               |
| 21   | 290                           | 4.6                           |                               |                               |                  |                  | 2.9                               |
| 22   | 290                           | 4.6                           |                               |                               |                  |                  | 2.9                               |
| 23   | 290                           | 4.6                           |                               |                               |                  |                  | 2.9                               |

Time: 75.00Z.  
Sweep: 0.75 Mc to 11.6 Mc in 3.4 minutes supplemented by 0.6 Mc to 14.0 Mc in two minutes.  
Median values.

Table 28

(Revision of previously published provisional data)

Prince Rupert, Canada (54.70N, 130.10W)

| Time | H <sub>1</sub> F <sub>2</sub> | F <sub>2</sub> F <sub>2</sub> | H <sub>1</sub> F <sub>1</sub> | F <sub>2</sub> F <sub>1</sub> | H <sub>1</sub> E | F <sub>2</sub> E | F <sub>2</sub> -M <sub>3000</sub> |
|------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|------------------|------------------|-----------------------------------|
| 00   | 290                           | 3.3                           |                               |                               |                  |                  | 2.9                               |
| 01   | 290                           | 3.3                           |                               |                               |                  |                  | 2.9                               |
| 02   | 290                           | 3.3                           |                               |                               |                  |                  | 2.9                               |
| 03   | 290                           | 3.3                           |                               |                               |                  |                  | 2.9                               |
| 04   | 290                           | 3.3                           |                               |                               |                  |                  | 2.9                               |
| 05   | 290                           | 3.3                           |                               |                               |                  |                  | 2.9                               |
| 06   | 290                           | 3.3                           |                               |                               |                  |                  | 2.9                               |
| 07   | 290                           | 3.3                           |                               |                               |                  |                  | 2.9                               |
| 08   | 290                           | 3.3                           |                               |                               |                  |                  | 2.9                               |
| 09   | 290                           | 3.3                           |                               |                               |                  |                  | 2.9                               |
| 10   | 290                           | 3.3                           |                               |                               |                  |                  | 2.9                               |
| 11   | 290                           | 3.3                           |                               |                               |                  |                  | 2.9                               |
| 12   | 290                           | 3.3                           |                               |                               |                  |                  | 2.9                               |
| 13   | 290                           | 3.3                           |                               |                               |                  |                  | 2.9                               |
| 14   | 290                           | 3.3                           |                               |                               |                  |                  | 2.9                               |
| 15   | 290                           | 3.3                           |                               |                               |                  |                  | 2.9                               |
| 16   | 290                           | 3.3                           |                               |                               |                  |                  | 2.9                               |
| 17   | 290                           | 3.3                           |                               |                               |                  |                  | 2.9                               |
| 18   | 290                           | 3.3                           |                               |                               |                  |                  | 2.9                               |
| 19   | 290                           | 3.3                           |                               |                               |                  |                  | 2.9                               |
| 20   | 290                           | 3.3                           |                               |                               |                  |                  | 2.9                               |
| 21   | 290                           | 3.3                           |                               |                               |                  |                  | 2.9                               |
| 22   | 290                           | 3.3                           |                               |                               |                  |                  | 2.9                               |
| 23   | 290                           | 3.3                           |                               |                               |                  |                  | 2.9                               |

Time: 120.00Z.  
Sweep: Manual operation.

Table 25 (Provisional Data)

March 1946

Campbell Island (52.50S, 169.20E)

| Time | H <sub>1</sub> F <sub>2</sub> | F <sub>2</sub> F <sub>2</sub> | H <sub>1</sub> F <sub>1</sub> | F <sub>2</sub> F <sub>1</sub> | H <sub>1</sub> E | F <sub>2</sub> E | F <sub>2</sub> -M <sub>3000</sub> |
|------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|------------------|------------------|-----------------------------------|
| 00   |                               |                               |                               |                               |                  |                  |                                   |
| 01   |                               |                               |                               |                               |                  |                  |                                   |
| 02   |                               |                               |                               |                               |                  |                  |                                   |
| 03   |                               |                               |                               |                               |                  |                  |                                   |
| 04   |                               |                               |                               |                               |                  |                  |                                   |
| 05   | 300                           | 4.1                           |                               |                               |                  |                  | 2.6                               |
| 06   | 250                           | 6.2                           |                               |                               |                  |                  | 2.9                               |
| 07   | 285                           | 7.2                           |                               |                               |                  |                  | 2.9                               |
| 08   | 300                           | 7.7                           |                               |                               |                  |                  | 2.9                               |
| 09   | 290                           | 8.4                           |                               |                               |                  |                  | 2.9                               |
| 10   | 300                           | 8.5                           |                               |                               |                  |                  | 2.9                               |
| 11   | 300                           | 8.7                           |                               |                               |                  |                  | 2.9                               |
| 12   | 295                           | 8.7                           |                               |                               |                  |                  | 2.9                               |
| 13   | 300                           | 9.0                           |                               |                               |                  |                  | 2.9                               |
| 14   | 300                           | 8.8                           |                               |                               |                  |                  | 2.9                               |
| 15   | 285                           | 8.8                           |                               |                               |                  |                  | 2.9                               |
| 16   | 275                           | 8.8                           |                               |                               |                  |                  | 2.9                               |
| 17   | 260                           | 8.8                           |                               |                               |                  |                  | 2.9                               |
| 18   | 255                           | 8.6                           |                               |                               |                  |                  | 2.9                               |
| 19   | 250                           | 8.1                           |                               |                               |                  |                  | 2.9                               |
| 20   | 280                           | 7.1                           |                               |                               |                  |                  | 2.6                               |
| 21   |                               |                               |                               |                               |                  |                  |                                   |
| 22   |                               |                               |                               |                               |                  |                  |                                   |
| 23   | 310                           | 6.0                           |                               |                               |                  |                  | 2.4                               |

Time: 165.00Z.  
Sweep: 1.0 Mc to 15 Mc. Manual operation.  
Median values.

Table 27

(Revision of previously published provisional data)

Fairbanks, Alaska (64.90N, 147.60W)

| Time | H <sub>1</sub> F <sub>2</sub> | F <sub>2</sub> F <sub>2</sub> | H <sub>1</sub> F <sub>1</sub> | F <sub>2</sub> F <sub>1</sub> | H <sub>1</sub> E | F <sub>2</sub> E | F <sub>2</sub> -M <sub>3000</sub> |
|------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|------------------|------------------|-----------------------------------|
| 00   | 328                           | 4.0                           |                               |                               |                  |                  | 2.6                               |
| 01   | 338                           | 3.6                           |                               |                               |                  |                  | 2.6                               |
| 02   | 342                           | 3.8                           |                               |                               |                  |                  | 2.6                               |
| 03   | 362                           | 4.0                           |                               |                               |                  |                  | 2.7                               |
| 04   | 372                           | 4.2                           |                               |                               |                  |                  | 2.6                               |
| 05   | 380                           | 4.7                           |                               |                               |                  |                  | 2.6                               |
| 06   | 410                           | 4.9                           |                               |                               |                  |                  | 2.6                               |
| 07   | 420                           | 5.0                           |                               |                               |                  |                  | 2.6                               |
| 08   | 438                           | 5.2                           |                               |                               |                  |                  | 2.6                               |
| 09   | 415                           | 5.6                           |                               |                               |                  |                  | 2.6                               |
| 10   | 425                           | 5.7                           |                               |                               |                  |                  | 2.6                               |
| 11   | 395                           | 6.0                           |                               |                               |                  |                  | 2.7                               |
| 12   | 385                           | 6.2                           |                               |                               |                  |                  | 2.7                               |
| 13   | 366                           | 6.4                           |                               |                               |                  |                  | 2.7                               |
| 14   | 352                           | 6.6                           |                               |                               |                  |                  | 2.7                               |
| 15   | 315                           | 6.7                           |                               |                               |                  |                  | 2.8                               |
| 16   | 260                           | 6.8                           |                               |                               |                  |                  | 2.8                               |
| 17   | 252                           | 6.5                           |                               |                               |                  |                  | 2.8                               |
| 18   | 262                           | 6.4                           |                               |                               |                  |                  | 2.8                               |
| 19   | 268                           | 6.4                           |                               |                               |                  |                  | 2.8                               |
| 20   | 260                           | 5.4                           |                               |                               |                  |                  | 2.8                               |
| 21   | 275                           | 5.6                           |                               |                               |                  |                  | 2.8                               |
| 22   | 286                           | 4.8                           |                               |                               |                  |                  | 2.8                               |
| 23   | 318                           | 3.5                           |                               |                               |                  |                  | 2.6                               |

Time: 150.00Z.  
Sweep: 16.0 Mc to 0.5 Mc in fifteen minutes.  
Median values.



Table 29

Swan River, Manitoba (52.1°N, 101.2°W)  
(9th through 22nd only)

April 1946

| Time | h'P2  | f'P2  | h'P1 | f'P1 | h'E | f'E | P2-M5000 |
|------|-------|-------|------|------|-----|-----|----------|
| 00   | 290   | (3.7) |      |      |     |     |          |
| 01   | 300   | (3.1) |      |      |     |     |          |
| 02   | 310   | 3.0   |      |      |     |     |          |
| 03   | 300   | 2.7   |      |      |     |     | 2.0      |
| 04   | (300) | (2.7) |      |      |     |     | 1.5      |
| 06   | (300) | (2.6) |      |      |     |     |          |
| 08   | (265) | (3.9) |      |      |     |     |          |
| 07   | (250) | (4.4) |      |      |     |     |          |
| 08   | (270) | (4.8) |      |      |     |     |          |
| 09   | (340) |       |      |      |     |     |          |
| 10   |       |       | 220  |      | 120 | 2.6 |          |
| 11   |       |       | 245  | 4 4  | 110 | 2.6 |          |
| 12   |       |       |      |      | 110 | 3.1 |          |
| 13   |       |       | 200  |      |     |     |          |
| 14   | (360) |       | 220  |      |     |     |          |
| 15   | (360) | (5.6) | 230  | 4.5  | 110 | 2.9 |          |
| 16   | 310   | (6.4) | 220  | 4.4  | 110 | 2.9 |          |
| 17   | (305) | (6.8) | 230  | 4.1  |     | 2.5 |          |
| 18   | 285   | (6.7) |      |      |     |     |          |
| 19   | 250   | (6.0) |      |      |     |     |          |
| 20   | 250   | 5.9   |      |      |     |     |          |
| 21   | 250   | 5.1   |      |      |     |     |          |
| 22   | 250   | 4.6   |      |      |     |     |          |
| 23   | 250   | 4.7   |      |      |     |     |          |

Time: 90.0°W.  
Sweep: 1.2 Mc to 16.0 Mc in approximately two minutes.  
Median values.

Table 31

(Revision of previously published provisional data)

Ottawa, Canada (45.5°N, 75.8°W)

April 1946

| Time | h'P2 | f'P2 | h'P1 | f'P1 | h'E | f'E | P2-M5000 |
|------|------|------|------|------|-----|-----|----------|
| 00   | 290  | 4.7  |      |      |     |     | 2.8      |
| 01   | 300  | 3.5  |      |      |     |     | 2.9      |
| 02   | 310  | 3.1  |      |      |     |     | 2.8      |
| 03   | 315  | 3.2  |      |      |     |     | 2.9      |
| 04   | 320  | 3.1  |      |      |     |     | 2.9      |
| 06   | 300  | 3.3  |      |      |     |     | 2.9      |
| 08   | 250  | 4.6  |      |      |     |     | 3.1      |
| 07   | 240  | 5.6  | 220  |      | 3.6 | 130 | 3.1      |
| 08   | 230  | 6.3  | 230  | 4.4  | 120 | 2.9 | 3.0      |
| 09   | 240  | 6.6  | 216  | 4.6  | 120 | 3.1 | 2.9      |
| 10   | 350  | 6.9  | 210  | 5.0  | 120 | 3.3 | 2.8      |
| 11   | 350  | 7.2  | 199  | 5.0  | 120 | 3.4 | 2.8      |
| 12   | 320  | 8.0  | 200  | 5.1  | 120 | 3.4 | 2.8      |
| 13   | 335  | 8.4  | 210  | 5.1  | 120 | 3.5 | 2.7      |
| 14   | 330  | 8.4  | 210  | 5.0  | 120 | 3.4 | 2.7      |
| 15   | 310  | 8.4  | 220  | 4.9  | 120 | 3.3 | 2.7      |
| 16   | 310  | 8.6  | 230  | 4.0  | 120 | 3.2 | 2.8      |
| 17   | 286  | 7.9  | 235  | 4.5  | 120 | 2.9 | 2.8      |
| 18   | 250  | 7.8  |      |      | 140 | 2.4 | 2.8      |
| 19   | 260  | 7.8  |      |      |     |     | 2.6      |
| 20   | 250  | 7.4  |      |      |     |     | 2.8      |
| 21   | 250  | 6.8  |      |      |     |     | 2.8      |
| 22   | 270  | 5.8  |      |      |     |     | 2.8      |
| 23   | 300  | 4.8  |      |      |     |     | 2.8      |

Time: 75.0°W.  
Sweep: 1.93 Mc to 13.6 Mc. Manual operation.  
Median values.

Adak, Alaska (61.9°N, 176.6°W)

April 1946

| Time | h'P2  | f'P2  | h'P1 | f'P1 | h'E | f'E | P2-M5000 |
|------|-------|-------|------|------|-----|-----|----------|
| 00   | 310   | 4.8   |      |      |     |     | 2.6      |
| 01   | (320) | (4.4) |      |      |     |     | (2.6)    |
| 02   | (320) | (4.2) |      |      |     |     | (2.6)    |
| 03   | (325) | (4.0) |      |      |     |     | (2.5)    |
| 04   | (320) | (3.8) |      |      |     |     | (2.6)    |
| 06   | (280) | (4.6) |      |      |     |     | (2.7)    |
| 08   | 260   | 5.2   |      |      |     |     | 2.8      |
| 07   | 255   | 6.0   |      |      |     |     |          |
| 08   | 305   | 6.5   |      |      |     |     | 3.2      |
| 09   | 300   | 6.8   |      |      |     |     | 3.0      |
| 10   | 290   | 7.0   |      |      |     |     | 3.0      |
| 11   | 290   | 7.0   |      |      |     |     | 3.5      |
| 12   | 280   | 8.0   |      |      |     |     | 3.0      |
| 13   | 280   | 7.7   |      |      |     |     | 3.0      |
| 14   | 260   | 7.4   |      |      |     |     | 3.4      |
| 15   | 240   | 7.5   |      |      |     |     | 3.0      |
| 16   | 230   | 7.6   |      |      |     |     | 3.1      |
| 17   | 240   | 7.4   |      |      |     |     | 3.1      |
| 18   | 240   | 7.4   |      |      |     |     | 3.1      |
| 19   | (240) | (7.6) |      |      |     |     | (3.0)    |
| 20   | (240) | (7.5) |      |      |     |     | (3.0)    |
| 21   | (250) | (6.2) |      |      |     |     | (2.9)    |
| 22   | (280) | (6.2) |      |      |     |     | (2.8)    |
| 23   | (320) | (4.8) |      |      |     |     | (2.6)    |

Time: 180.0°W.  
Sweep: Manual operation.  
Median values.

Table 32

(Revision of previously published provisional data)

Boston, Massachusetts (42.4°N, 71.2°W)

April 1946

| Time | h'P2  | f'P2  | h'P1 | f'P1 | h'E | f'E | P2-M5000 |
|------|-------|-------|------|------|-----|-----|----------|
| 00   | 300   | 4.1   |      |      |     |     | 2.7      |
| 01   | 300   | 4.0   |      |      |     |     | 2.7      |
| 02   | 298   | 3.7   |      |      |     |     | 2.7      |
| 03   | 290   | 4.2   |      |      |     |     | 2.8      |
| 04   | 275   | 4.6   |      |      |     |     | 2.8      |
| 05   | 275   | 4.7   |      |      |     |     | 3.0      |
| 06   | (255) | (6.0) |      |      |     |     | (3.0)    |
| 07   | (270) | (6.9) |      |      |     |     | (3.0)    |
| 08   | (290) | (6.7) |      |      |     |     | (2.9)    |
| 09   | (332) | (6.1) |      |      |     |     | (2.7)    |
| 10   | (342) | (6.6) |      |      |     |     | (2.8)    |
| 11   | (360) | (6.5) | 250  |      | 4.7 |     | (2.8)    |
| 12   | (350) | (6.5) | 250  |      | 5.0 |     | (2.9)    |
| 13   | (350) | (6.5) | 242  |      | 4.8 |     | (2.9)    |
| 14   | (350) | (8.6) | 250  |      | 4.5 |     | (2.9)    |
| 15   | (325) | (6.5) |      |      |     |     | (3.0)    |
| 16   | 310   | 7.0   |      |      |     |     | 3.0      |
| 17   | 282   | 7.0   |      |      |     |     | 2.9      |
| 18   | 292   | (6.7) |      |      |     |     | (2.8)    |
| 19   | 260   | 6.2   |      |      |     |     | 3.0      |
| 20   | 260   | 6.6   |      |      |     |     | 2.8      |
| 21   | 260   | 6.2   |      |      |     |     | 2.8      |
| 22   | 280   | 5.6   |      |      |     |     | 2.8      |
| 23   | 300   | 4.7   |      |      |     |     | 2.7      |

Time: 75.0°W.  
Sweep: 0.85 Mc to 13.75 Mc in one minute.  
Median values.

Table 33

Table 33

(Revision of previously published provisional data)

San Francisco, California (37.6°N, 122.2°W) April 1946

| Time | h'F2 | f°F2 | h'F1 | f°F1 | h'E | f°E | f <sub>min</sub> | f <sub>max</sub> |
|------|------|------|------|------|-----|-----|------------------|------------------|
| 00   | 290  | 4.6  |      |      | 120 | 1.8 |                  | 2.6              |
| 01   | 290  | 4.7  |      |      | 110 | 2.6 |                  | 2.6              |
| 02   | 280  | 4.6  |      |      | 110 | 3.0 |                  | 2.7              |
| 03   | 280  | 4.6  |      |      | 110 | 3.4 |                  | 2.8              |
| 04   | 260  | 4.3  |      |      | 110 | 3.6 |                  | 2.8              |
| 05   | 280  | 4.2  |      |      | 110 | 3.7 |                  | 2.8              |
| 06   | 240  | 5.4  |      |      | 120 | 1.8 |                  | 3.0              |
| 07   | 240  | 6.6  | 240  | 3.8  | 110 | 2.6 |                  | 3.1              |
| 08   | 280  | 7.4  | 220  | 4.3  | 110 | 3.0 |                  | 3.0              |
| 09   | 280  | 7.6  | 210  | 4.6  | 110 | 3.4 |                  | 2.9              |
| 10   | 280  | 9.3  | 200  | 4.8  | 110 | 3.6 |                  | 2.8              |
| 11   | 315  | 9.1  | 210  | 5.2  | 110 | 3.7 |                  | 2.8              |
| 12   | 310  | 9.6  | 210  | 5.2  | 110 | 3.7 |                  | 2.9              |
| 13   | 300  | 9.7  | 210  | 5.2  | 110 | 3.8 |                  | 2.9              |
| 14   | 300  | 10.0 | 220  | 5.0  | 110 | 3.7 |                  | 2.8              |
| 15   | 280  | 9.6  | 220  | 5.0  | 110 | 3.5 |                  | 2.9              |
| 16   | 280  | 9.2  | 220  | 4.5  | 110 | 3.2 |                  | 3.0              |
| 17   | 250  | 8.7  | 240  | 4.0  | 110 | 2.8 |                  | 3.1              |
| 18   | 240  | 8.5  | 240  | 3.2  | 115 | 2.3 |                  | 3.1              |
| 19   | 230  | 8.0  |      |      | 115 | 2.3 |                  | 3.1              |
| 20   | 220  | 6.6  |      |      | 115 | 2.3 |                  | 3.1              |
| 21   | 235  | 5.8  |      |      | 115 | 2.3 |                  | 2.9              |
| 22   | 255  | 5.4  |      |      | 115 | 2.3 |                  | 2.8              |
| 23   | 275  | 5.0  |      |      | 115 | 2.3 |                  | 2.7              |

Time: 120.00W.

Sweep: 0.8 Mc to 12.0 Mc in six minutes. Record centered on the hour.  
Median values.

Table 35

Maui, Hawaii (20.9°N, 156.5°W) April 1946

| Time | h'F2 | f°F2 | h'F1 | f°F1 | h'E | f°E | f <sub>min</sub> | f <sub>max</sub> |
|------|------|------|------|------|-----|-----|------------------|------------------|
| 00   | 270  | 8.0  |      |      |     |     |                  | 3.0              |
| 01   | 260  | 7.6  |      |      |     |     |                  | 3.2              |
| 02   | 260  | 6.4  |      |      |     |     |                  | 3.0              |
| 03   | 260  | 4.8  |      |      |     |     |                  | 3.0              |
| 04   | 280  | 4.1  |      |      |     |     |                  | 2.8              |
| 05   | 300  | 4.2  |      |      |     |     |                  | 2.8              |
| 06   | 275  | 4.7  |      |      |     |     |                  | 2.9              |
| 07   | 250  | 7.4  |      |      |     | 2.4 |                  | 3.1              |
| 08   | 260  | 9.0  | 250  | 3.0  |     | 3.0 |                  | 3.0              |
| 09   | 270  | 9.6  | 240  | 3.4  |     | 3.4 |                  | 2.8              |
| 10   | 300  | 10.6 | 220  | 5.4  |     | 2.6 |                  | 2.6              |
| 11   | 330  | 12.1 | 210  | 5.3  |     | 2.7 |                  | 2.7              |
| 12   | 330  | 13.2 | 210  | 5.4  |     | 2.8 |                  | 2.8              |
| 13   | 300  | 13.8 | 220  | 6.2  |     | 2.9 |                  | 2.9              |
| 14   | 300  | 14.0 | 225  | 5.2  |     | 2.9 |                  | 2.9              |
| 15   | 300  | 14.0 | 220  | 5.1  |     | 2.9 |                  | 2.9              |
| 16   | 290  | 14.3 | 220  | 4.7  |     | 3.6 |                  | 2.9              |
| 17   | 250  | 13.8 | 220  | 4.7  |     | 3.3 |                  | 2.9              |
| 18   | 245  | 13.2 | 220  |      |     | 2.9 |                  | 3.0              |
| 19   | 240  | 12.2 |      |      |     | 2.4 |                  | 3.0              |
| 20   | 250  | 10.4 |      |      |     |     |                  | 2.9              |
| 21   | 260  | 8.6  |      |      |     |     |                  | 2.8              |
| 22   | 270  | 8.7  |      |      |     |     |                  | 2.8              |
| 23   | 280  | 8.3  |      |      |     |     |                  | 2.8              |

Time: 150.00W.

Sweep: 2.2 Mc to 16.0 Mc in one minute.  
Median values.

Table 34

(Revision of previously published provisional data)

Baton Rouge, Louisiana (30.5°N, 91.2°W) April 1946

| Time | h'F2 | f°F2 | h'F1 | f°F1 | h'E | f°E | f <sub>min</sub> | f <sub>max</sub> |
|------|------|------|------|------|-----|-----|------------------|------------------|
| 00   | 310  | 5.4  |      |      |     |     |                  | 2.6              |
| 01   | 310  | 5.2  |      |      |     |     |                  | 2.8              |
| 02   | 300  | 5.2  |      |      |     |     |                  | 2.8              |
| 03   | 300  | 4.9  |      |      |     |     |                  | 2.8              |
| 04   | 295  | 4.6  |      |      |     |     |                  | 2.8              |
| 05   | 300  | 4.4  |      |      |     |     |                  | 2.9              |
| 06   | 280  | 5.4  |      |      |     |     |                  | 3.0              |
| 07   | 280  | 7.0  | 250  | 3.7  | 130 | 4.3 |                  | 3.1              |
| 08   | 280  | 8.4  | 250  | 3.9  | 120 | 2.8 |                  | 3.0              |
| 09   | 300  | 9.2  | 240  | 4.3  | 120 | 3.1 |                  | 2.9              |
| 10   | 305  | 9.5  | 240  | 4.5  | 120 | 3.3 |                  | 2.9              |
| 11   | 320  | 9.6  | 240  | 4.6  | 120 | 3.3 |                  | 3.0              |
| 12   | 320  | 9.6  | 240  | 4.6  | 120 | 3.4 |                  | 3.1              |
| 13   | 330  | 9.6  | 245  | 4.7  | 120 | 3.4 |                  | 3.1              |
| 14   | 325  | 9.6  | 245  | 4.6  | 120 | 3.4 |                  | 3.1              |
| 15   | 310  | 9.6  | 245  | 4.5  | 120 | 3.3 |                  | 3.1              |
| 16   | 300  | 9.5  | 250  | 4.3  | 120 | 3.0 |                  | 3.1              |
| 17   | 290  | 9.4  | 250  | 3.9  | 120 | 2.7 |                  | 3.1              |
| 18   | 270  | 9.2  |      |      | 130 | 2.1 |                  | 3.0              |
| 19   | 260  | 8.2  |      |      |     |     |                  | 3.0              |
| 20   | 260  | 6.6  |      |      |     |     |                  | 2.9              |
| 21   | 270  | 6.0  |      |      |     |     |                  | 2.8              |
| 22   | 300  | 5.4  |      |      |     |     |                  | 2.7              |
| 23   | 310  | 5.3  |      |      |     |     |                  | 2.7              |

Time: 90.00W.

Sweep: 1.9 Mc to 9.8 Mc in three minutes, thirty seconds.  
Median values.

Table 36

San Juan, Puerto Rico (18.4°N, 66.1°W) April 1946

| Time | h'F2 | f°F2 | h'F1 | f°F1 | h'E | f°E | f <sub>min</sub> | f <sub>max</sub> |
|------|------|------|------|------|-----|-----|------------------|------------------|
| 00   |      | 8.0  |      |      |     |     |                  | 2.8              |
| 01   |      | 7.4  |      |      |     |     |                  | 2.8              |
| 02   |      | 7.0  |      |      |     |     |                  | 2.8              |
| 03   |      | 5.8  |      |      |     |     |                  | 2.8              |
| 04   |      | 4.5  |      |      |     |     |                  | 2.7              |
| 05   |      | 4.4  |      |      |     |     |                  | 2.7              |
| 06   |      | 4.8  |      |      |     |     |                  | 2.8              |
| 07   | 260  | 7.1  |      |      |     |     |                  | 3.0              |
| 08   | 270  | 8.6  |      |      |     |     |                  | 2.9              |
| 09   | 300  | 9.6  | 230  | 3.6  |     | 3.2 |                  | 2.9              |
| 10   | 320  | 10.3 | 220  | 4.9  |     | 3.4 |                  | 2.8              |
| 11   | 330  | 11.0 | 230  | 5.0  |     | 3.5 |                  | 2.7              |
| 12   | 330  | 11.9 | 220  | 5.1  |     | 3.5 |                  | 2.8              |
| 13   | 330  | 11.8 | 230  | 5.1  |     | 3.5 |                  | 2.8              |
| 14   | 330  | 11.4 | 230  | 5.0  |     | 3.5 |                  | 2.8              |
| 15   | 320  | 11.1 | 230  | 4.6  |     | 3.5 |                  | 2.7              |
| 16   | 300  | 10.7 | 230  | 4.2  |     | 3.2 |                  | 2.8              |
| 17   | 290  | 10.4 | 250  |      |     |     |                  | 2.8              |
| 18   | 270  | 10.4 |      |      |     |     |                  | 2.8              |
| 19   | 270  | 9.4  |      |      |     |     |                  | 2.8              |
| 20   |      | 8.6  |      |      |     |     |                  | 2.8              |
| 21   |      | 7.8  |      |      |     |     |                  | 2.7              |
| 22   |      | 7.9  |      |      |     |     |                  | 2.8              |
| 23   |      | 8.1  |      |      |     |     |                  | 2.7              |

Time: 60.00W.

Sweep: Record centered on the hour.  
Median values.



Table 37

(Revision of previously published provisional data)

Trinidad, Brit. West Indies (10.6°N, 61.2°W)

April 1946

| Time | h'P2 | P'P2 | h'P1 | P'P1 | h'E | P'E | P2-M000 |
|------|------|------|------|------|-----|-----|---------|
| 00   | 260  | 10.4 |      |      |     |     | 3.1     |
| 01   | 240  | 9.0  |      |      |     |     | 3.2     |
| 02   | 220  | 7.6  |      |      |     |     | 3.2     |
| 03   | 240  | 5.8  |      |      |     |     | 3.0     |
| 04   | 280  | 5.0  |      |      |     |     | 2.9     |
| 05   | 280  | 4.6  |      |      |     |     | 2.9     |
| 06   | 270  | 5.8  |      |      |     |     | 3.0     |
| 07   | 245  | 7.8  |      |      |     |     | 3.2     |
| 08   | 250  | 9.5  | 120  | 2.4  |     |     | 3.1     |
| 09   | 280  | 10.6 | 230  | 4.5  | 120 | 3.1 | 3.0     |
| 10   | 300  | 11.6 | 220  | 5.1  | 120 | 3.6 | 2.9     |
| 11   | 300  | 12.3 | 220  | 6.4  | 120 | 3.8 | 2.8     |
| 12   | 300  | 13.0 | 220  | 5.4  | 120 | 3.5 | 2.8     |
| 13   | 300  | 13.0 | 220  | 5.4  | 120 | 3.9 | 2.9     |
| 14   | 300  | 13.0 | 220  | 5.4  | 120 | 4.0 | 2.9     |
| 15   | 280  | 12.4 | 230  | 5.3  | 120 | 4.6 | 2.9     |
| 16   | 280  | 11.6 | 230  | 5.2  | 120 | 3.8 | 2.9     |
| 17   | 260  | 11.6 | 230  | 4.7  | 120 | 3.8 | 2.9     |
| 18   | 260  | 10.9 | 240  | 4.4  | 120 | 4.0 | 2.9     |
| 19   | 270  | 10.5 |      |      |     |     | 3.0     |
| 20   | 280  | 10.8 |      |      |     |     | 2.8     |
| 21   | 280  | 10.8 |      |      |     |     | 2.9     |
| 22   | 280  | 11.0 |      |      |     |     | 3.0     |
| 23   | 270  | 10.6 |      |      |     |     | 3.0     |

Time: 60.0°W.

Sweep: Manual operation.

Median values.

Table 38

(Revision of previously published provisional data)

Christmas Island (1.9°N, 157.3°W)

April 1946

| Time | h'P2 | P'P2 | h'P1 | P'P1 | h'E | P'E | P2-M000 |
|------|------|------|------|------|-----|-----|---------|
| 00   | 220  | 10.5 |      |      |     |     | 2.6     |
| 01   | 230  | 9.3  |      |      |     |     | 2.6     |
| 02   | 240  | 8.2  |      |      |     |     | 2.1     |
| 03   | 230  | 7.9  |      |      |     |     | 2.1     |
| 04   | 240  | 7.2  |      |      |     |     | 2.1     |
| 05   | 230  | 6.4  |      |      |     |     | 2.6     |
| 06   | 240  | 5.4  |      |      |     |     | 3.2     |
| 07   | 260  | 8.0  |      |      | 120 | 2.3 | 3.0     |
| 08   | 240  | 9.7  |      |      | 110 | 3.1 | 2.8     |
| 09   | 220  | 10.2 |      |      |     | 3.6 | 2.6     |
| 10   | 230  | 10.4 | 220  |      |     |     | 2.4     |
| 11   | 285  | 10.6 | 210  | 5.1  |     |     | 2.4     |
| 12   | 30   | 10.6 | 210  | 5.2  |     |     | 2.4     |
| 13   | 300  | 10.6 | 210  | 5.1  |     |     | 2.4     |
| 14   | 300  | 11.1 | 210  | 5.0  |     |     | 2.4     |
| 15   | 210  | 11.5 | 210  |      |     |     | 2.4     |
| 16   | 220  | 11.5 | 210  |      | 116 | 3.6 | 2.4     |
| 17   | 240  | 11.5 |      |      |     | 3.0 | 2.4     |
| 18   | 270  | 11.0 |      |      |     |     | 2.4     |
| 19   | 320  | 10.6 |      |      |     |     | 2.3     |
| 20   | 350  | 10.0 |      |      |     |     | 2.3     |
| 21   | 300  | 10.0 |      |      |     |     | 2.6     |
| 22   | 270  | 10.0 |      |      |     |     | 2.7     |
| 23   | 240  | 11.0 |      |      |     |     | 2.7     |

Time: 150.0°W.

Sweep: 1.6 Mc to 13.0 Mc in one minute, thirty seconds.

Median values.

Table 39

Huarayo, Peru (12.0°S, 75.3°W)

April 1946

| Time | h'P2 | P'P2 | h'P1 | P'P1 | h'E | P'E | P2-M000 |
|------|------|------|------|------|-----|-----|---------|
| 00   | 220  | 8.6  |      |      |     |     | 3.1     |
| 01   | 230  | 7.4  |      |      |     |     | 3.1     |
| 02   | 240  | 6.3  |      |      |     |     | 3.1     |
| 03   | 250  | 5.8  |      |      |     |     | 3.1     |
| 04   | 250  | 5.0  |      |      |     |     | 3.2     |
| 05   | 245  | 4.1  |      |      |     |     | 3.2     |
| 06   | 260  | 5.2  |      |      |     |     | 3.0     |
| 07   | 240  | 8.9  |      |      |     |     | 3.0     |
| 08   | 230  | 10.8 |      |      |     |     | 3.1     |
| 09   | 270  | 11.3 |      |      |     |     | 2.6     |
| 10   | 280  | 10.8 | 220  | 6.1  |     |     | 2.6     |
| 11   | 290  | 10.1 | 200  | 5.2  |     |     | 2.4     |
| 12   | 300  | 10.6 | 200  | 5.2  |     |     | 2.4     |
| 13   | 280  | 10.6 | 200  | 5.1  |     |     | 2.3     |
| 14   | 280  | 10.9 | 200  | 5.0  |     |     | 2.4     |
| 15   | 210  | 11.3 | 200  | 4.6  |     |     | 2.4     |
| 16   | 240  | 11.7 |      |      |     |     | 3.6     |
| 17   | 260  | 11.6 |      |      |     |     | 3.0     |
| 18   | 300  | 10.9 |      |      |     |     | 1.1     |
| 19   | 350  | 9.9  |      |      |     |     | 2.3     |
| 20   | 280  | 9.8  |      |      |     |     | 2.4     |
| 21   | 270  | 9.6  |      |      |     |     | 2.6     |
| 22   | 230  | 9.6  |      |      |     |     | 2.9     |
| 23   | 220  | 9.1  |      |      |     |     | 3.0     |

Time: 75°W.

Sweep: 16.0 Mc to 0.5 Mc in fifteen minutes.

Median values.

Table 40

Adak, Alaska (61.9°N, 176.6°W)

March 1946

| Time | h'P2  | P'P2  | h'P1 | P'P1 | h'E | P'E | P2-M000 |
|------|-------|-------|------|------|-----|-----|---------|
| 00   | 340   | 3.6   |      |      |     |     | 2.6     |
| 01   | 330   | 3.4   |      |      |     |     | (2.8)   |
| 02   | 340   | (3.4) |      |      |     |     | (2.7)   |
| 03   | 360   | (3.5) |      |      |     |     | (2.6)   |
| 04   | 380   | (3.4) |      |      |     |     | (2.6)   |
| 05   | 390   | (3.4) |      |      |     |     | (2.6)   |
| 06   | 270   | 4.4   |      |      |     |     | 3.0     |
| 07   | 230   | 5.7   |      |      |     |     | 2.4     |
| 08   | 220   | 7.0   |      |      |     |     | 2.5     |
| 09   | 230   | 7.5   |      |      |     |     | 2.6     |
| 10   | 230   | 9.2   |      |      |     |     | 3.1     |
| 11   | 260   | 9.7   | 220  | 4.6  |     |     | 3.2     |
| 12   | 240   | 10.3  | 210  | 4.4  |     |     | 3.0     |
| 13   | 230   | 10.1  | 220  | 4.4  |     |     | 3.1     |
| 14   | 245   | 9.8   | 215  | 4.4  |     |     | 3.1     |
| 15   | 230   | 9.2   |      |      |     |     | 3.1     |
| 16   | 230   | 9.0   |      |      |     |     | 3.1     |
| 17   | 230   | 8.7   |      |      |     |     | 2.8     |
| 18   | 220   | 7.4   |      |      |     |     | 2.4     |
| 19   | (220) | (6.6) |      |      |     |     | (2.6)   |
| 20   | (230) | (5.6) |      |      |     |     | (3.1)   |
| 21   | (24)  | (4.7) |      |      |     |     | (3.0)   |
| 22   | (260) | (3.8) |      |      |     |     | (2.8)   |
| 23   | (320) | (3.4) |      |      |     |     | (2.6)   |

Time: 180.0°W.

Sweep: Manual operation.

Median values.

Table 41

Great Baddow, England (51.7°N, 0.5°E) March 1946

| Time | h'F2 | f'F2 | h'F1 | f'F1 | h'E | f'E | f2-M3000 |
|------|------|------|------|------|-----|-----|----------|
| 00   | 4.3  |      |      |      |     |     | 2.7      |
| 01   | 4.2  |      |      |      |     | 0.2 | 2.6      |
| 02   | 3.8  |      |      |      |     | 0.7 | 2.6      |
| 03   | 3.6  |      |      |      |     | 0.6 | 2.7      |
| 04   | 3.0  |      |      |      |     | 0.7 | 2.7      |
| 05   | 2.8  |      |      |      |     | 0.8 | 2.7      |
| 06   | 3.7  |      |      |      |     | 1.0 | 3.0      |
| 07   | 5.8  |      |      |      |     | 2.0 | 3.3      |
| 08   | 7.0  |      |      |      |     | 2.7 | 3.2      |
| 09   | 7.8  |      |      |      |     | 2.9 | 3.2      |
| 10   | 8.7  |      | 3.6  |      |     | 3.0 | 3.2      |
| 11   | 8.9  |      | 4.4  |      |     | 3.1 | 3.1      |
| 12   | 9.4  |      | 4.8  |      |     | 3.2 | 3.0      |
| 13   | 9.5  |      |      |      |     | 3.0 | 3.0      |
| 14   | 9.7  |      |      |      |     | 2.8 | 3.1      |
| 15   | 9.5  |      |      |      |     | 2.6 | 3.1      |
| 16   | 9.4  |      |      |      |     | 2.1 | 3.2      |
| 17   | 8.9  |      |      |      |     | 2.1 | 3.2      |
| 18   | 8.7  |      |      |      |     | 2.0 | 3.1      |
| 19   | 7.6  |      |      |      |     |     | 3.0      |
| 20   | 6.5  |      |      |      |     |     | 2.9      |
| 21   | 5.8  |      |      |      |     |     | 2.8      |
| 22   | 5.0  |      |      |      |     |     | 2.8      |
| 23   | 4.6  |      |      |      |     |     | 2.8      |

Time: 0.0°  
Sweep: Manual operation.  
Median values.

Table 43

Cairo, Egypt (30.0°N, 31.2°E) March 1946

| Time | h'F2 | f'F2 | h'F1 | f'F1 | h'E | f'E | f2-M3000 |
|------|------|------|------|------|-----|-----|----------|
| 00   |      |      |      |      |     |     | 2.8      |
| 01   | 7.1  |      |      |      |     |     | 2.8      |
| 02   | 6.7  |      |      |      |     |     | 2.8      |
| 03   | 6.6  |      |      |      |     |     | 2.8      |
| 04   | 4.5  |      |      |      |     |     | 3.0      |
| 05   | 3.8  |      |      |      |     |     | 3.1      |
| 06   | 5.0  |      |      |      |     |     | 3.0      |
| 07   | 7.8  |      |      |      |     |     | 3.0      |
| 08   | 9.6  |      |      |      |     |     | 3.1      |
| 09   | 10.8 |      |      |      |     |     | 3.0      |
| 10   | 11.6 |      |      |      |     |     | 3.0      |
| 11   | 12.6 |      |      |      |     |     | 2.9      |
| 12   | 13.2 |      |      |      |     |     | 3.0      |
| 13   | 13.0 |      |      |      |     |     | 3.0      |
| 14   | 12.9 |      |      |      |     |     | 3.0      |
| 15   | 12.5 |      |      |      |     |     | 3.0      |
| 16   | 11.7 |      |      |      |     |     | 3.0      |
| 17   | 11.2 |      |      |      |     |     | 3.1      |
| 18   | 10.2 |      |      |      |     |     | 2.8      |
| 19   | 8.6  |      |      |      |     |     | 2.8      |
| 20   | 8.1  |      |      |      |     |     | 2.8      |
| 21   | 7.5  |      |      |      |     |     | 2.8      |
| 22   | 7.6  |      |      |      |     |     | 2.8      |
| 23   | 7.0  |      |      |      |     |     | 2.8      |

Time: 30.0°E.  
Sweep: Manual operation.  
Median values.  
\* Original data sheet labeled "Extent of E".

Table 42

Tokyo, Japan (35.6°N, 139.6°E) March 1946

| Time | h'F2 | f'F2 | h'F1 | f'F1 | h'E | f'E | f2-M3000 |
|------|------|------|------|------|-----|-----|----------|
| 00   |      |      |      |      |     |     | 2.6      |
| 01   |      | 5.6  |      |      |     |     | 2.8      |
| 02   |      | 5.7  |      |      |     |     | 2.9      |
| 03   |      | 5.6  |      |      |     |     | 3.0      |
| 04   |      | 5.2  |      |      |     |     | 2.8      |
| 05   |      | 4.8  |      |      |     |     | 2.8      |
| 06   |      | 4.6  |      |      |     |     | 3.2      |
| 07   |      | 6.1  |      |      |     |     | 3.4      |
| 08   |      | 8.6  |      |      |     |     | 3.3      |
| 09   |      | 9.7  |      |      |     |     | 3.6      |
| 10   |      | 10.3 |      |      |     |     | 3.2      |
| 11   |      | 11.4 |      |      |     |     | 4.0      |
| 12   |      | 12.0 |      |      |     |     | 3.7      |
| 13   |      | 12.2 |      |      |     |     | 4.0      |
| 14   |      | 12.0 |      |      |     |     | 4.0      |
| 15   |      | 11.4 |      |      |     |     | 3.9      |
| 16   |      | 11.2 |      |      |     |     | 3.2      |
| 17   |      | 10.8 |      |      |     |     | 4.0      |
| 18   |      | 10.6 |      |      |     |     | 3.4      |
| 19   |      | 9.4  |      |      |     |     | 3.3      |
| 20   |      | 7.6  |      |      |     |     | 2.9      |
| 21   |      | 6.7  |      |      |     |     | 3.4      |
| 22   |      | 6.5  |      |      |     |     | 2.4      |
| 23   |      | 6.3  |      |      |     |     | 3.0      |
| 24   |      | 6.1  |      |      |     |     | 2.1      |
| 25   |      |      |      |      |     |     | 2.8      |

Time: 135.0°E.  
Sweep: Manual operation.  
Median values.

Table 44

(Revision of previously published provisional data)  
Chungking, China (29.4°N, 106.8°E) March 1946

| Time | h'F2 | f'F2 | h'F1 | f'F1 | h'E | f'E | f2-M3000 |
|------|------|------|------|------|-----|-----|----------|
| 00   | 240  | 7.8  |      |      |     |     | 3.1      |
| 01   | 240  | 7.1  |      |      |     |     | 3.0      |
| 02   | 240  | 6.6  |      |      |     |     | 3.2      |
| 03   | 220  | 6.0  |      |      |     |     | 3.3      |
| 04   | 245  | 5.0  |      |      |     |     | 3.4      |
| 05   | 260  | 4.7  |      |      |     |     | 3.1      |
| 06   | 250  | 5.4  |      |      |     |     | 3.2      |
| 07   | 220  | 7.8  |      |      |     |     | 3.4      |
| 08   | 220  | 10.4 |      |      |     |     | 3.2      |
| 09   | 230  | 12.0 |      |      |     |     | 3.2      |
| 10   | 230  | 13.2 |      |      |     |     | 3.0      |
| 11   | 260  | 14.0 |      |      |     |     | (3.0)    |
| 12   | 275  | 14.0 |      |      |     |     | (3.2)    |
| 13   | 290  | 14.0 |      |      |     |     | (3.3)    |
| 14   | 280  | 14.0 |      |      |     |     | (3.3)    |
| 15   | 260  | 13.5 |      |      |     |     | (3.3)    |
| 16   | 240  | 13.5 |      |      |     |     | 3.2      |
| 17   | 230  | 13.8 |      |      |     |     | 3.1      |
| 18   | 205  | 13.5 |      |      |     |     | 3.1      |
| 19   | 200  | 12.0 |      |      |     |     | 3.1      |
| 20   | 205  | 11.2 |      |      |     |     | 3.0      |
| 21   | 220  | 9.0  |      |      |     |     | 3.0      |
| 22   | 240  | 8.3  |      |      |     |     | 3.0      |
| 23   | 240  | 8.3  |      |      |     |     | 3.0      |

Time: 105.0°E.  
Sweep: 3.3 Mc to 12.3 Mc in fifteen minutes. Manual operation.  
Median values.



Table 45

Guam I. (13.5°N, 144.6°E)

March 1946

| Time | h'F2 | f°F2 | h'F1 | f°F1 | h'E | f°E | fEs | F2-M3000 |
|------|------|------|------|------|-----|-----|-----|----------|
| 00   | 240  | 11.5 |      |      |     |     | 2.8 | 3.2      |
| 01   | 240  | 10.9 |      |      |     |     |     | 3.3      |
| 02   | 230  | 10.3 |      |      |     |     |     | 3.3      |
| 03   | 220  | 8.0  |      |      |     |     |     | 3.2      |
| 04   | 235  | 6.0  |      |      |     |     |     | 3.1      |
| 05   | 240  | 4.6  |      |      |     |     |     | 3.3      |
| 06   | 240  | 4.8  |      |      |     |     |     | 3.2      |
| 07   | 290  | 7.4  |      |      |     |     |     | 3.2      |
| 08   | 240  | 10.6 |      |      |     |     |     | 3.1      |
| 09   | 240  | 11.9 |      |      |     |     |     | 2.9      |
| 10   | 265  | 12.2 |      |      |     |     |     | 2.6      |
| 11   | 280  | 12.0 |      |      |     |     |     | 2.5      |
| 12   | 280  | 11.3 |      |      |     |     |     | 2.4      |
| 13   | 280  | 11.5 |      |      |     |     |     | 2.5      |
| 14   | 280  | 12.6 |      |      |     |     |     | 2.6      |
| 15   | 270  | 13.4 |      |      |     |     |     | 2.7      |
| 16   | 240  | 14.7 |      |      |     |     |     | 2.7      |
| 17   | 260  | 14.3 |      |      |     |     |     | 2.6      |
| 18   | 300  | 14.0 |      |      |     |     |     | 2.5      |
| 19   | 340  | 13.9 |      |      |     |     |     | 2.8      |
| 20   | 270  | 13.5 |      |      |     |     |     | (2.9)    |
| 21   | 240  | 12.7 |      |      |     |     |     | 3.0      |
| 22   | 240  | 13.0 |      |      |     |     |     | 3.1      |
| 23   |      |      |      |      |     |     |     |          |

Time: 150.0°W.

Sweep: Manual operation.

Median values.

Table 47

(Revision of previously published provisional data)

Adak, Alaska (51.9°N, 176.6°E)

February 1946

| Time | h'F2 | f°F2 | h'F1 | f°F1 | h'E | f°E | fEs | F2-M3000 |
|------|------|------|------|------|-----|-----|-----|----------|
| 00   | 350  | 3.2  |      |      |     |     |     | 2.7      |
| 01   | 310  | 3.4  |      |      |     |     |     | 2.8      |
| 02   | 320  | 3.4  |      |      |     |     |     | 2.6      |
| 03   |      | 3.2  |      |      |     |     |     |          |
| 04   |      | 3.2  |      |      |     |     |     |          |
| 05   | 300  | 3.2  |      |      |     |     |     | 2.8      |
| 06   | 300  | 3.2  |      |      |     |     |     | 2.8      |
| 07   | 240  | 4.7  |      |      |     |     |     | 3.2      |
| 08   | 220  | 6.0  |      |      |     |     |     | 3.3      |
| 09   | 220  | 7.3  |      |      |     |     |     | 3.4      |
| 10   | 230  | 8.3  |      |      |     |     |     | 3.5      |
| 11   | 240  | 9.0  |      |      |     |     |     | 3.3      |
| 12   | 220  | 8.7  |      |      |     |     |     | 3.3      |
| 13   | 230  | 9.0  |      |      |     |     |     | 3.4      |
| 14   | 225  | 8.6  |      |      |     |     |     | 3.3      |
| 15   | 220  | 8.1  |      |      |     |     |     | 3.4      |
| 16   | 220  | 7.3  |      |      |     |     |     | 3.4      |
| 17   | 220  | 6.4  |      |      |     |     |     | 3.2      |
| 18   | 220  | 4.9  |      |      |     |     |     | 3.4      |
| 19   | 215  | 4.3  |      |      |     |     |     | 3.4      |
| 20   | 240  | 3.6  |      |      |     |     |     | 3.0      |
| 21   | 260  | 3.2  |      |      |     |     |     | 2.7      |
| 22   | 295  | 3.2  |      |      |     |     |     | 2.8      |
| 23   | 290  | 3.2  |      |      |     |     |     |          |

Time: 180.0°W.

Sweep: Manual operation.

Median values.

(Revision of previously published provisional data)

Christmas I. (1.9°N, 157.3°W)

March 1946

| Time | h'F2 | f°F2 | h'F1 | f°F1 | h'E | f°E | fEs | F2-M3000 |
|------|------|------|------|------|-----|-----|-----|----------|
| 00   | 220  | 10.7 |      |      |     |     | 2.6 | 1.1      |
| 01   | 230  | 9.8  |      |      |     |     | 2.3 | 1.2      |
| 02   | 230  | 8.0  |      |      |     |     | 2.1 | 3.2      |
| 03   | 240  | 7.3  |      |      |     |     | 1.8 | 3.2      |
| 04   | 240  | 6.6  |      |      |     |     | 2.2 | 3.2      |
| 05   | 235  | 5.8  |      |      |     |     | 2.7 | 3.2      |
| 06   | 230  | 5.8  |      |      |     |     | 3.4 | 3.1      |
| 07   | 260  | 7.6  |      |      |     |     | 3.0 | 2.9      |
| 08   | 240  | 9.9  |      |      |     |     | 3.4 | 2.5      |
| 09   | 220  | 10.7 |      |      |     |     | 8.2 | 2.4      |
| 10   | 230  | 10.4 |      |      |     |     | 8.4 | 2.4      |
| 11   | 285  | 10.2 |      |      |     |     | 8.7 | 2.4      |
| 12   | 300  | 10.4 |      |      |     |     | 8.5 | 2.3      |
| 13   | 300  | 10.8 |      |      |     |     | 8.2 | 2.3      |
| 14   | 300  | 11.4 |      |      |     |     | 7.9 | 2.4      |
| 15   | 225  | 11.8 |      |      |     |     | 7.0 | 2.5      |
| 16   | 220  | 12.0 |      |      |     |     | 3.2 | 2.5      |
| 17   | 240  | 12.0 |      |      |     |     | 2.5 | 2.5      |
| 18   | 260  | 11.7 |      |      |     |     | 3.5 | 2.4      |
| 19   | 300  | 11.7 |      |      |     |     | 1.8 | 2.3      |
| 20   | 340  | 11.0 |      |      |     |     | 2.1 | 2.5      |
| 21   | 300  | 10.5 |      |      |     |     | 2.6 | 2.8      |
| 22   | 260  | 10.5 |      |      |     |     | 2.6 | 3.0      |
| 23   | 240  | 11.4 |      |      |     |     |     |          |

Time: 150.0°W.

Sweep: 1.5 Mc to 13.0 Mc in one minute, thirty seconds.

Median values.

Table 48

Tokyo, Japan (35.6°N, 139.6°E)

February 1946

| Time | h'F2 | f°F2 | h'F1 | f°F1 | h'E | f°E | fEs | F2-M3000 |
|------|------|------|------|------|-----|-----|-----|----------|
| 00   |      |      |      |      |     |     | 2.0 | 2.8      |
| 01   |      | 3.8  |      |      |     |     | 2.8 | 2.8      |
| 02   |      | 3.6  |      |      |     |     | 2.9 | 2.9      |
| 03   |      | 3.8  |      |      |     |     | 2.2 | 2.8      |
| 04   |      | 3.6  |      |      |     |     | 2.2 | 3.0      |
| 05   |      | 3.4  |      |      |     |     | 2.3 | 3.5      |
| 06   |      | 3.8  |      |      |     |     | 2.9 | 3.5      |
| 07   |      | 7.2  |      |      |     |     | 3.9 | 3.4      |
| 08   |      | 8.4  |      |      |     |     | 4.0 | 3.4      |
| 09   |      | 9.7  |      |      |     |     | 4.2 | 3.4      |
| 10   |      | 9.8  |      |      |     |     | 4.0 | 3.3      |
| 11   |      | 10.5 |      |      |     |     | 4.2 | 3.3      |
| 12   |      | 10.7 |      |      |     |     | 4.0 | 3.3      |
| 13   |      | 9.8  |      |      |     |     | 3.7 | 3.4      |
| 14   |      | 9.5  |      |      |     |     | 2.2 | 3.2      |
| 15   |      | 9.1  |      |      |     |     | 2.2 | 2.9      |
| 16   |      | 8.6  |      |      |     |     | 2.2 | 2.8      |
| 17   |      | 7.8  |      |      |     |     | 2.3 | 2.8      |
| 18   |      | 6.0  |      |      |     |     | 2.3 | 2.8      |
| 19   |      | 5.1  |      |      |     |     | 2.3 | 2.8      |
| 20   |      | 4.5  |      |      |     |     | 2.3 | 2.8      |
| 21   |      | 4.1  |      |      |     |     | 2.3 | 2.8      |
| 22   |      | 4.0  |      |      |     |     | 2.3 | 2.8      |
| 23   |      | 3.8  |      |      |     |     |     |          |

Time: 135.0°E.

Sweep: Manual operation.

Median values.

Table 50

(Revision of previously published provisional data)

Leyte, Philippine Is. (11.0°N, 125.0°E) February 1946

| Time | h'F2 | f°F2 | h'F1 | f°F1 | h'E | f°E | fEs | fEs |
|------|------|------|------|------|-----|-----|-----|-----|
| 00   |      |      |      |      |     |     | 4.4 | 3.1 |
| 01   |      | 9.0  |      |      |     |     | 4.0 | 3.2 |
| 02   |      | 6.0  |      |      |     |     | 3.7 | 3.2 |
| 03   |      | 7.3  |      |      |     |     | 3.3 | 3.3 |
| 04   |      | 5.9  |      |      |     |     | 3.0 | 3.2 |
| 05   |      | 4.7  |      |      |     |     | 2.9 | 3.2 |
| 06   |      | 3.8  |      |      |     |     | 3.0 | 3.1 |
| 07   |      | 3.0  |      |      |     |     | 3.9 | 3.0 |
| 08   |      | 4.6  |      |      |     |     | 3.2 | 3.1 |
| 09   |      | 8.9  |      |      |     |     | 3.1 | 2.8 |
| 10   |      | 10.3 |      |      |     |     | 3.5 | 2.7 |
| 11   |      | 11.0 |      |      |     |     | 3.7 | 2.5 |
| 12   |      | 10.2 |      |      |     |     | 3.8 | 2.5 |
| 13   |      | 10.1 |      |      |     |     | 3.9 | 2.5 |
| 14   |      | 10.0 |      |      |     |     | 3.9 | 2.5 |
| 15   |      | 10.0 |      |      |     |     | 3.7 | 2.5 |
| 16   |      | 10.7 |      |      |     |     | 3.4 | 2.5 |
| 17   |      | 10.4 |      |      |     |     | 2.9 | 2.6 |
| 18   |      | 10.5 |      |      |     |     | 5.5 | 2.5 |
| 19   |      | 10.0 |      |      |     |     | 5.5 | 2.5 |
| 20   |      | 9.0  |      |      |     |     | 3.5 | 2.6 |
| 21   |      | 9.5  |      |      |     |     | 3.4 | 2.6 |
| 22   |      | 9.3  |      |      |     |     | 4.0 | 2.6 |
| 23   |      | 9.4  |      |      |     |     | 4.6 | 3.0 |

Time: 135.0°E.  
Sweep: Manual operation.  
Median values.

Table 52

(Revision of previously published provisional data)

Brisbane, Australia (27.5°S, 153.0°E) February 1946

| Time | h'F2 | f°F2 | h'F1 | f°F1 | h'E | f°E | fEs | fEs |
|------|------|------|------|------|-----|-----|-----|-----|
| 00   | 270  | 6.9  |      |      |     |     | 3.0 | 3.0 |
| 01   | 250  | 6.6  |      |      |     |     | 3.3 | 3.0 |
| 02   | 260  | 6.0  |      |      |     |     |     | 3.0 |
| 03   | 260  | 5.4  |      |      |     |     |     | 3.0 |
| 04   | 270  | 4.8  |      |      |     |     |     | 3.1 |
| 05   | 260  | 4.8  |      |      |     |     |     | 3.4 |
| 06   | 230  | 5.6  |      |      |     |     |     | 3.4 |
| 07   | 220  | 6.6  |      |      |     |     | 2.9 | 3.4 |
| 08   | 230  | 7.2  |      |      |     |     | 3.1 | 3.2 |
| 09   | 300  | 8.0  |      |      |     |     | 4.6 | 3.0 |
| 10   | 300  | 8.7  |      |      |     |     | 5.2 | 3.0 |
| 11   | 310  | 9.0  |      |      |     |     | 3.7 | 2.9 |
| 12   | 300  | 9.6  |      |      |     |     | 3.9 | 3.0 |
| 13   | 300  | 9.5  |      |      |     |     | 3.7 | 3.0 |
| 14   | 300  | 9.0  |      |      |     |     | 4.5 | 3.0 |
| 15   | 300  | 9.2  |      |      |     |     | 3.6 | 3.0 |
| 16   | 290  | 9.0  |      |      |     |     | 3.6 | 3.0 |
| 17   | 240  | 8.7  |      |      |     |     | 3.8 | 3.1 |
| 18   | 240  | 8.4  |      |      |     |     | 2.5 | 3.1 |
| 19   | 240  | 7.8  |      |      |     |     | 3.0 | 2.8 |
| 20   | 300  | 7.3  |      |      |     |     | 2.7 | 2.8 |
| 21   | 300  | 7.2  |      |      |     |     | 2.8 | 2.8 |
| 22   | 305  | 7.0  |      |      |     |     | 2.8 | 2.8 |
| 23   | 290  | 7.2  |      |      |     |     | 2.9 | 2.9 |

Time: 150.0°E.  
Sweep: 2.2 Mc to 12.5 Mc in two minutes, thirty seconds.  
Median values.

Table 49

Sum I. (13.5°N, 144.8°E) February 1946

| Time | h'F2 | f°F2 | h'F1 | f°F1 | h'E | f°E | fEs | fEs |
|------|------|------|------|------|-----|-----|-----|-----|
| 00   | 230  | 9.5  |      |      |     |     | 2.0 | 3.2 |
| 01   | 230  | 8.5  |      |      |     |     | 2.1 | 3.1 |
| 02   | 230  | 8.4  |      |      |     |     |     | 3.1 |
| 03   | 220  | 8.6  |      |      |     |     |     | 3.4 |
| 04   | 240  | 5.4  |      |      |     |     |     | 3.2 |
| 05   | 240  | 4.5  |      |      |     |     | 2.0 | 3.2 |
| 06   | 255  | 4.0  |      |      |     |     | 1.6 | 3.1 |
| 07   | 260  | 6.2  |      |      |     |     | 2.4 | 3.1 |
| 08   | 240  | 9.9  |      |      | 100 |     | 3.4 | 3.2 |
| 09   | 235  | 11.5 |      |      | 110 |     | 3.4 | 3.1 |
| 10   | 270  | 12.6 |      |      | 110 |     | 3.9 | 2.8 |
| 11   | 285  | 12.5 |      |      | 110 |     |     | 2.6 |
| 12   | 285  | 11.5 |      |      | 110 |     |     | 2.4 |
| 13   | 290  | 11.0 |      |      | 110 |     |     | 2.5 |
| 14   | 285  | 11.1 |      |      | 110 |     |     | 2.1 |
| 15   | 280  | 11.5 |      |      | 110 |     |     | 2.6 |
| 16   | 290  | 11.8 |      |      | 110 |     |     | 2.5 |
| 17   | 290  | 12.5 |      |      | 120 |     |     | 2.7 |
| 18   | 260  | 12.5 |      |      | 110 |     |     | 2.3 |
| 19   | 280  | 12.0 |      |      |     |     |     | 2.7 |
| 20   | 300  | 11.5 |      |      |     |     |     | 2.6 |
| 21   | 260  | 11.5 |      |      |     |     |     | 2.8 |
| 22   | 230  | 10.4 |      |      |     |     | 3.0 | 3.0 |
| 23   | 220  | 10.3 |      |      |     |     | 2.8 | 3.1 |

Time: 150.0°E.  
Sweep: Manual operation.  
Median values.

Table 51

(Revision of previously published provisional data)

Cape York, Australia (11.0°S, 142.40°E) February 1946

| Time | h'F2 | f°F2 | h'F1 | f°F1 | h'E | f°E | fEs | fEs |
|------|------|------|------|------|-----|-----|-----|-----|
| 00   | 250  | 9.5  |      |      |     |     | 2.2 | 1.1 |
| 01   | 225  | 9.0  |      |      |     |     | 2.3 | 1.2 |
| 02   | 230  | 8.0  |      |      |     |     | 2.2 | 1.2 |
| 03   | 230  | 7.1  |      |      |     |     | 2.3 | 1.1 |
| 04   | 230  | 6.5  |      |      |     |     | 2.7 | 1.0 |
| 05   | 230  | 5.5  |      |      |     |     | 2.4 | 1.1 |
| 06   | 250  | 4.5  |      |      |     |     | 2.7 | 1.0 |
| 07   | 240  | 6.1  |      |      |     |     | 2.0 | 1.0 |
| 08   | 232  | 7.6  |      |      |     |     | 2.5 | 1.1 |
| 09   | 260  | 8.5  |      |      |     |     | 3.0 | 1.2 |
| 10   | 310  | 9.4  |      |      |     |     | 3.0 | 1.0 |
| 11   | 350  | 10.0 |      |      |     |     | 2.8 | 1.0 |
| 12   | 340  | 11.5 |      |      |     |     | 2.5 | 1.0 |
| 13   | 350  | 11.5 |      |      |     |     | 2.5 | 1.0 |
| 14   | 325  | D    |      |      |     |     | 4.8 | 1.0 |
| 15   | 300  | D    |      |      |     |     | 4.8 | 1.0 |
| 16   | 300  | D    |      |      |     |     | 4.5 | 1.0 |
| 17   | 290  | 11.2 |      |      |     |     | 4.5 | 1.0 |
| 18   | 250  | 11.0 |      |      |     |     | 3.6 | 1.0 |
| 19   | 262  | 10.2 |      |      |     |     | 2.7 | 1.0 |
| 20   | 285  | 9.8  |      |      |     |     | 2.7 | 1.0 |
| 21   | 287  | 9.8  |      |      |     |     | 2.6 | 1.0 |
| 22   | 290  | 9.6  |      |      |     |     | 2.3 | 1.0 |
| 23   | 275  | 9.1  |      |      |     |     | 2.1 | 1.0 |

Time: 150.0°E.  
Sweep: 1.0 Mc to 13.0 Mc in one minute, fifty-five seconds.  
Median values.  
D - see page 6, paragraph b of this issue.



Table 51

(Revision of previously published provisional data)

Watheroo, W. Australia (30.3°S, 115.9°E) February 1946

| Time | h <sup>1</sup> F2 | f <sup>o</sup> F2 | h'F1 | f <sup>o</sup> F1 | h'E | f <sup>o</sup> E | f <sub>min</sub> | f <sub>max</sub> |
|------|-------------------|-------------------|------|-------------------|-----|------------------|------------------|------------------|
| 00   | 265               | 5.9               |      |                   |     |                  | 3.6              | 2.8              |
| 01   | 268               | 5.3               |      |                   |     |                  | 4.0              | 2.9              |
| 02   | 242               | 4.8               |      |                   |     |                  | 4.0              | 2.8              |
| 03   | 260               | 4.5               |      |                   |     |                  | 3.2              | 2.8              |
| 04   | 260               | 4.1               |      |                   |     |                  | 3.6              | 2.8              |
| 05   | 270               | 3.8               |      |                   |     |                  | 3.2              | 2.8              |
| 06   | 265               | 4.4               |      |                   |     |                  | 3.2              | 2.8              |
| 07   | 235               | 5.8               |      |                   | 1.8 |                  | 3.2              | 3.0              |
| 08   | 275               | 6.3               |      |                   | 2.6 |                  | 3.1              | 3.2              |
| 09   | 320               | 7.0               | 225  | 4.4               | 3.1 |                  | 4.1              | 3.1              |
| 10   | 320               | 7.4               | 220  | 4.9               | 3.4 |                  | 4.8              | 3.0              |
| 11   | 330               | 8.3               | 210  | 5.0               | 3.5 |                  | 4.4              | 3.0              |
| 12   | 325               | 9.1               | 220  | 5.2               | 3.6 |                  | 4.1              | 2.9              |
| 13   | 328               | 9.0               | 220  | 5.1               | 3.7 |                  | 4.0              | 2.9              |
| 14   | 320               | 9.1               | 230  | 5.1               | 3.6 |                  | 4.6              | 2.9              |
| 15   | 315               | 9.1               | 225  | 5.0               | 3.6 |                  | 3.9              | 2.9              |
| 16   | 309               | 8.6               | 230  | 4.8               | 3.4 |                  | 4.2              | 3.0              |
| 17   | 290               | 8.3               |      |                   | 3.0 |                  | 3.5              | 3.1              |
| 18   | 240               | 7.8               |      |                   | 2.5 |                  | 3.3              | 3.0              |
| 19   | 240               | 7.4               |      |                   |     |                  | 2.8              | 2.9              |
| 20   | 235               | 7.2               |      |                   |     |                  | 2.9              | 2.8              |
| 21   | 260               | 6.6               |      |                   |     |                  | 2.6              | 2.8              |
| 22   | 262               | 6.2               |      |                   |     |                  | 3.0              | 2.8              |
| 23   | 270               | 6.0               |      |                   |     |                  | 3.0              | 2.8              |

Time: 120.0°E.

Sweep: 16.0 Mc to 0.5 Mc in fifteen minutes.

Median values.

Table 52

(Revision of previously published provisional data)

Robart, Tasmania (42.6°S, 147.1°E) February 1946

| Time | h <sup>1</sup> F2 | f <sup>o</sup> F2 | h'F1 | f <sup>o</sup> F1 | h'E | f <sup>o</sup> E | f <sub>min</sub> | f <sub>max</sub> |
|------|-------------------|-------------------|------|-------------------|-----|------------------|------------------|------------------|
| 00   | 278               | 5.5               |      |                   |     |                  | 2.7              | 2.9              |
| 01   | 270               | 5.0               |      |                   |     |                  | 3.0              | 2.8              |
| 02   | 275               | 4.5               |      |                   |     |                  | 2.9              | 2.9              |
| 03   | 265               | 3.7               |      |                   |     |                  | 2.7              | 3.0              |
| 04   | 270               | 3.4               |      |                   |     |                  | 2.8              | 3.0              |
| 05   | 275               | 3.4               |      |                   |     | (1.4)            | 3.0              | 3.1              |
| 06   | 250               | 4.5               |      |                   |     | (2.2)            | 2.8              | 3.2              |
| 07   | 250               | 5.2               |      |                   | 105 |                  | 2.6              | 3.2              |
| 08   | 300               | 5.5               | 225  | 4.2               | 108 |                  | 3.0              | 3.6              |
| 09   | 350               | 6.0               | 230  | 4.6               | 100 |                  | 3.3              | 3.0              |
| 10   | 380               | 6.0               | 215  | 4.8               | 100 |                  | 3.5              | 2.9              |
| 11   | 370               | 6.5               | 200  | 4.9               | 100 |                  | 3.6              | 2.9              |
| 12   | 350               | 6.5               | 200  | 5.0               | 100 |                  | 3.8              | 3.0              |
| 13   | 350               | 6.9               | 200  | 5.0               | 100 |                  | 3.6              | 3.0              |
| 14   | 350               | 7.0               | 215  | 4.9               | 100 |                  | 3.6              | 2.9              |
| 15   | 350               | 7.0               | 225  | 4.7               | 100 |                  | 3.5              | 2.9              |
| 16   | 322               | 6.8               | 225  | 4.7               | 100 |                  | 3.3              | 3.0              |
| 17   | 310               | 7.0               | 230  | 4.4               | 100 |                  | 3.0              | 3.0              |
| 18   | 250               | 7.5               | 238  | 3.9               | 110 |                  | 2.5              | 3.0              |
| 19   | 250               | 7.6               |      |                   |     | (2.0)            | 2.9              | 3.0              |
| 20   | 250               | 7.0               |      |                   |     |                  | 3.0              | 3.0              |
| 21   | 250               | 6.5               |      |                   |     |                  | 3.6              | 2.9              |
| 22   | 275               | 6.0               |      |                   |     |                  | 3.6              | 2.8              |
| 23   | 275               | 5.7               |      |                   |     |                  | 3.6              | 2.8              |

Time: 150.0°E.

Sweep: 1.0 Mc to 13.0 Mc in one minute, fifty-five seconds.

Median values.

Table 53

(Revision of previously published provisional data)

Cockburn, Australia (35.3°S, 149.0°E) February 1946

| Time | h <sup>1</sup> F2 | f <sup>o</sup> F2 | h'F1 | f <sup>o</sup> F1 | h'E | f <sup>o</sup> E | f <sub>min</sub> | f <sub>max</sub> |
|------|-------------------|-------------------|------|-------------------|-----|------------------|------------------|------------------|
| 00   | 290               | 5.6               |      |                   |     |                  | 3.3              | 2.9              |
| 01   | 280               | 5.7               |      |                   |     |                  | 3.0              | 3.0              |
| 02   | 275               | 5.1               |      |                   |     |                  | 3.2              | 2.9              |
| 03   | 290               | 4.5               |      |                   |     |                  | 2.4              | 2.9              |
| 04   | 290               | 4.0               |      |                   |     |                  |                  | 2.8              |
| 05   | 290               | 3.8               |      |                   |     |                  |                  | 2.9              |
| 06   | 260               | 4.6               |      |                   | 120 |                  | 2.0              | 3.0              |
| 07   | 270               | 5.4               |      |                   | 110 |                  | 2.6              | 3.0              |
| 08   | 290               | 6.1               | 250  | 3.8               | 110 |                  | 3.0              | 3.0              |
| 09   | 320               | 6.7               | 220  | 4.5               | 100 |                  | 3.3              | 3.0              |
| 10   | 330               | 7.8               | 215  | 4.6               | 100 |                  | 3.5              | 2.9              |
| 11   | 310               | 7.7               | 205  | 4.6               | 100 |                  | 3.6              | 2.9              |
| 12   | 320               | 7.9               | 210  | 4.7               | 100 |                  | 3.6              | 2.9              |
| 13   | 340               | 8.0               | 210  | 4.7               | 100 |                  | 3.6              | 3.0              |
| 14   | 350               | 7.6               | 210  | 4.7               | 100 |                  | 3.6              | 2.9              |
| 15   | 320               | 7.6               | 220  | 4.6               | 100 |                  | 3.5              | 2.9              |
| 16   | 310               | 7.6               | 242  | 4.5               | 100 |                  | 3.2              | 2.9              |
| 17   | 300               | 7.1               | 240  | 4.1               | 100 |                  | 3.0              | 3.0              |
| 18   | 260               | 7.1               | 250  | 3.6               | 110 |                  | 2.3              | 3.0              |
| 19   | 250               | 7.1               |      |                   |     | 1.7              | 2.1              | 3.0              |
| 20   | 280               | 6.6               |      |                   |     |                  |                  | 3.0              |
| 21   | 260               | 6.0               |      |                   |     |                  |                  | 2.9              |
| 22   | 290               | 5.6               |      |                   |     |                  |                  | 2.9              |
| 23   | 295               | 5.8               |      |                   |     |                  |                  | 2.9              |

Time: 150.0°E.

Sweep: 1.6 Mc to 12.5 Mc in two minutes.

Median values.

Table 54

Bukhta Tikaya, U.S.S.R. (80.5°N, 62.7°E) January 1946

| Time | h <sup>1</sup> F2 | f <sup>o</sup> F2 | h'F1 | f <sup>o</sup> F1 | h'E | f <sup>o</sup> E | f <sub>min</sub> | f <sub>max</sub> |
|------|-------------------|-------------------|------|-------------------|-----|------------------|------------------|------------------|
| 00   | 260               | 3.1               |      |                   |     |                  |                  |                  |
| 01   | 280               | 3.5               |      |                   |     |                  |                  |                  |
| 02   |                   |                   |      |                   |     |                  |                  |                  |
| 03   |                   |                   |      |                   |     |                  |                  |                  |
| 04   |                   |                   |      |                   |     |                  |                  |                  |
| 05   |                   |                   |      |                   |     |                  |                  |                  |
| 06   |                   |                   |      |                   |     |                  |                  |                  |
| 07   |                   |                   |      |                   |     |                  |                  |                  |
| 08   |                   |                   |      |                   |     |                  |                  |                  |
| 09   |                   |                   |      |                   |     |                  |                  |                  |
| 10   | 320               | 3.4               |      |                   |     |                  |                  |                  |
| 11   |                   |                   |      |                   |     |                  |                  |                  |
| 12   | 280               | 3.2               |      |                   |     |                  |                  |                  |
| 13   |                   |                   |      |                   |     |                  |                  |                  |
| 14   | 260               | 4.2               |      |                   |     |                  |                  |                  |
| 15   |                   |                   |      |                   |     |                  |                  |                  |
| 16   |                   |                   |      |                   |     |                  |                  |                  |
| 17   |                   |                   |      |                   |     |                  |                  |                  |
| 18   |                   |                   |      |                   |     |                  |                  |                  |
| 19   | 280               | 3.9               |      |                   |     |                  |                  |                  |
| 20   |                   |                   |      |                   |     |                  |                  |                  |
| 21   |                   |                   |      |                   |     |                  |                  |                  |
| 22   | 240               | 4.3               |      |                   |     |                  |                  |                  |
| 23   |                   |                   |      |                   |     |                  |                  |                  |

Time: 60.0°E.

Sweep: 1.5 Mc to 9.6 Mc in five to ten minutes. Manual operation.

Average values.

Table 57

Tokyo, Japan (35.5 N, 139.6 E)

January 1946

| Time | h <sub>1</sub> P2 | f <sub>o</sub> P2 | h <sub>1</sub> F1 | f <sub>o</sub> F1 | h <sub>1</sub> E | f <sub>o</sub> E | f <sub>1</sub> E | f <sub>2</sub> -M5000 |
|------|-------------------|-------------------|-------------------|-------------------|------------------|------------------|------------------|-----------------------|
| 00   |                   | 3.1               |                   |                   |                  |                  | 2.4              | 2.9                   |
| 01   |                   | 3.5               |                   |                   |                  |                  | 2.4              | 2.9                   |
| 02   |                   | 3.3               |                   |                   |                  |                  | 2.2              | 3.0                   |
| 03   |                   | 3.1               |                   |                   |                  |                  | 3.1              | 3.1                   |
| 04   |                   | 3.0               |                   |                   |                  |                  | 2.2              | 3.2                   |
| 05   |                   | 3.0               |                   |                   |                  |                  | 2.0              | 3.0                   |
| 06   |                   | 2.7               |                   |                   |                  |                  | 2.0              | 3.3                   |
| 07   |                   | 4.9               |                   |                   |                  |                  | 2.4              | 3.5                   |
| 08   |                   | 6.1               |                   |                   |                  |                  | 2.6              | 3.8                   |
| 09   |                   | 7.0               |                   |                   |                  |                  | 3.2              | 3.6                   |
| 10   |                   | 8.1               |                   |                   |                  |                  | 3.8              | 3.7                   |
| 11   |                   | 8.0               |                   |                   |                  |                  | 3.9              | 3.8                   |
| 12   |                   | 7.8               |                   |                   |                  |                  | 3.7              | 3.7                   |
| 13   |                   | 7.2               |                   |                   |                  |                  | 3.8              | 3.6                   |
| 14   |                   | 7.1               |                   |                   |                  |                  | 3.7              | 3.6                   |
| 15   |                   | 6.7               |                   |                   |                  |                  | 3.5              | 3.8                   |
| 16   |                   | 5.9               |                   |                   |                  |                  | 3.0              | 3.6                   |
| 17   |                   | 4.9               |                   |                   |                  |                  | 2.9              | 3.6                   |
| 18   |                   | 4.4               |                   |                   |                  |                  | 2.5              | 3.5                   |
| 19   |                   | 3.9               |                   |                   |                  |                  | 2.6              | 3.3                   |
| 20   |                   | 3.4               |                   |                   |                  |                  | 2.2              | 3.2                   |
| 21   |                   | 2.8               |                   |                   |                  |                  | 2.1              | 3.0                   |
| 22   |                   | 3.0               |                   |                   |                  |                  | 2.4              | 2.9                   |
| 23   |                   | 3.2               |                   |                   |                  |                  |                  |                       |

Time: 135.0°E.  
Sweep:  
Median values.

Table 59

(Revision of previously published provisional data)

Natheroo, W. Australia (30.3 S, 115.90 E)

January 1946

| Time | h <sub>1</sub> P2 | f <sub>o</sub> P2 | h <sub>1</sub> F1 | f <sub>o</sub> F1 | h <sub>1</sub> E | f <sub>o</sub> E | f <sub>1</sub> E | f <sub>2</sub> -M5000 |
|------|-------------------|-------------------|-------------------|-------------------|------------------|------------------|------------------|-----------------------|
| 00   | 250               | 5.5               |                   |                   |                  |                  | 3.7              | 3.0                   |
| 01   | 250               | 4.9               |                   |                   |                  |                  | 4.1              | 2.9                   |
| 02   | 250               | 4.6               |                   |                   |                  |                  | 3.5              | 3.0                   |
| 03   | 260               | 3.9               |                   |                   |                  |                  | 3.3              | 2.9                   |
| 04   | 235               | 3.6               |                   |                   |                  |                  | 3.9              | 3.0                   |
| 05   | 270               | 3.2               |                   |                   |                  |                  | 3.4              | 3.0                   |
| 06   | 240               | 4.5               |                   |                   |                  |                  | 4.2              | 3.3                   |
| 07   | 270               | 5.3               | 235               | 4.4               |                  | 2.0              | 2.6              | 4.0                   |
| 08   | 330               | 5.7               | 230               | 4.4               |                  | 3.0              | 4.0              | 3.2                   |
| 09   | 350               | 6.2               | 220               | 4.6               |                  | 3.3              | 4.9              | 3.0                   |
| 10   | 355               | 6.4               | 210               | 4.6               |                  | 3.6              | 4.7              | 2.9                   |
| 11   | 360               | 6.8               | 210               | 4.7               |                  | 3.5              | 4.9              | 2.8                   |
| 12   | 360               | 7.3               | 210               | 4.7               |                  | 3.5              | 5.1              | 2.8                   |
| 13   | 335               | 7.9               | 220               | 4.7               |                  | 3.5              | 5.0              | 2.9                   |
| 14   | 325               | 7.7               | 210               | 4.7               |                  | 3.4              | 5.0              | 3.0                   |
| 15   | 310               | 7.5               | 228               | 4.6               |                  | 3.4              | 4.9              | 3.0                   |
| 16   | 300               | 7.2               | 220               | 4.4               |                  | 3.2              | 4.7              | 3.0                   |
| 17   | 285               | 7.0               | 225               | 4.2               |                  | 2.8              | 4.0              | 3.1                   |
| 18   | 280               | 6.5               | 232               | 3.5               |                  | 2.2              | 4.0              | 3.1                   |
| 19   | 248               | 6.4               |                   |                   |                  |                  | 3.5              | 3.1                   |
| 20   | 250               | 6.4               |                   |                   |                  |                  | 2.9              | 2.9                   |
| 21   | 250               | 5.8               |                   |                   |                  |                  | 2.9              | 2.8                   |
| 22   | 275               | 5.6               |                   |                   |                  |                  | 3.1              | 2.9                   |
| 23   | 270               | 5.6               |                   |                   |                  |                  | 3.6              | 2.9                   |

Time: Local  
Sweep: 16.0 Mc to 0.5 Mc in fifteen minutes.  
Median values.

(Revision of previously published provisional data)

Leyte, Philippine Is. (11.0°N, 125.0°E)

January 1946

| Time | h <sub>1</sub> P2 | f <sub>o</sub> P2 | h <sub>1</sub> F1 | f <sub>o</sub> F1 | h <sub>1</sub> E | f <sub>o</sub> E | f <sub>1</sub> E | f <sub>2</sub> -M5000 |
|------|-------------------|-------------------|-------------------|-------------------|------------------|------------------|------------------|-----------------------|
| 00   |                   | 5.5               |                   |                   |                  |                  | 3.2              | 3.3                   |
| 01   |                   | 4.8               |                   |                   |                  |                  | 3.2              | 3.3                   |
| 02   |                   | 4.2               |                   |                   |                  |                  | 2.9              | 3.4                   |
| 03   |                   | 3.2               |                   |                   |                  |                  | 2.7              | 3.2                   |
| 04   |                   | 2.7               |                   |                   |                  |                  | 2.4              | 3.1                   |
| 05   |                   | 2.3               |                   |                   |                  |                  | 2.4              | 3.0                   |
| 06   |                   | 2.0               |                   |                   |                  |                  | 2.4              | 3.0                   |
| 07   |                   | 3.8               |                   |                   |                  |                  | 3.0              | 3.1                   |
| 08   |                   | 7.1               |                   |                   |                  |                  | 4.2              | 3.1                   |
| 09   |                   | 9.0               |                   |                   |                  |                  | 3.0              | 3.0                   |
| 10   |                   | 9.2               | 4.9               |                   |                  |                  | 3.4              | 2.8                   |
| 11   |                   | 8.5               | 5.0               |                   |                  |                  | 3.5              | 2.6                   |
| 12   |                   | 8.4               | 5.0               |                   |                  |                  | 6.6              | 2.5                   |
| 13   |                   | 8.2               | 5.1               |                   |                  |                  | 6.4              | 2.5                   |
| 14   |                   | 8.4               | 5.0               |                   |                  |                  | 6.4              | 2.6                   |
| 15   |                   | 8.6               | 4.9               |                   |                  |                  | 5.2              | 2.6                   |
| 16   |                   | 8.9               | 4.6               |                   |                  |                  | 4.9              | 2.7                   |
| 17   |                   | 9.1               |                   |                   |                  |                  | 4.6              | 2.8                   |
| 18   |                   | 9.0               |                   |                   |                  |                  | 3.7              | 2.8                   |
| 19   |                   | 8.8               |                   |                   |                  |                  | 3.8              | 2.7                   |
| 20   |                   | 8.1               |                   |                   |                  |                  | 3.4              | 2.9                   |
| 21   |                   | 7.8               |                   |                   |                  |                  | 3.2              | 3.2                   |
| 22   |                   | 7.2               |                   |                   |                  |                  | 3.2              | 3.2                   |
| 23   |                   | 6.2               |                   |                   |                  |                  | 3.6              | 3.2                   |

Time: 135.0°E.  
Sweep: Manual operation.  
Median values.

Table 60

(Revision of previously published provisional data)

Bukhta Tikaya, U.S.S.R. (50.3°N, 52.7°E)

December 1945

| Time | h <sub>1</sub> P2 | f <sub>o</sub> P2 | h <sub>1</sub> F1 | f <sub>o</sub> F1 | h <sub>1</sub> E | f <sub>o</sub> E | f <sub>1</sub> E | f <sub>2</sub> -M5000 |
|------|-------------------|-------------------|-------------------|-------------------|------------------|------------------|------------------|-----------------------|
| 00   | 251               | 5.1               |                   |                   |                  |                  |                  |                       |
| 01   | 250               | 4.3               |                   |                   |                  |                  |                  |                       |
| 02   |                   |                   |                   |                   |                  |                  |                  |                       |
| 03   |                   |                   |                   |                   |                  |                  |                  |                       |
| 04   |                   |                   |                   |                   |                  |                  |                  |                       |
| 05   |                   |                   |                   |                   |                  |                  |                  |                       |
| 06   |                   |                   |                   |                   |                  |                  |                  |                       |
| 07   |                   |                   |                   |                   |                  |                  |                  |                       |
| 08   |                   |                   |                   |                   |                  |                  |                  |                       |
| 09   | 300               | 4.3               |                   |                   |                  |                  |                  |                       |
| 10   |                   |                   |                   |                   |                  |                  |                  |                       |
| 11   | 270               | 3.7               |                   |                   |                  |                  |                  |                       |
| 12   |                   |                   |                   |                   |                  |                  |                  |                       |
| 13   | 290               | 4.9               |                   |                   |                  |                  |                  |                       |
| 14   |                   |                   |                   |                   |                  |                  |                  |                       |
| 15   |                   |                   |                   |                   |                  |                  |                  |                       |
| 16   |                   |                   |                   |                   |                  |                  |                  |                       |
| 17   |                   |                   |                   |                   |                  |                  |                  |                       |
| 18   | 260               | 4.8               |                   |                   |                  |                  |                  |                       |
| 19   |                   |                   |                   |                   |                  |                  |                  |                       |
| 20   |                   |                   |                   |                   |                  |                  |                  |                       |
| 21   | 250               | 4.6               |                   |                   |                  |                  |                  |                       |
| 22   |                   |                   |                   |                   |                  |                  |                  |                       |
| 23   |                   |                   |                   |                   |                  |                  |                  |                       |

Time: 60.0°E.  
Sweep: 1.5 Mc to 9.5 Mc in five to ten minutes. Manual operation.  
Average values.

Table 61

Leningrad, U.S.S.R. (WETLAS) (60.0°N, 30.3°E) December 1945

| Time | h'F2 | f°F2 | h'F1 | f°F1 | h'E | f°E | f2s | f2-M5000 |
|------|------|------|------|------|-----|-----|-----|----------|
| 00   | 360  | 2.9  |      |      |     |     |     |          |
| 01   | 380  | 3.7  |      |      |     |     |     |          |
| 02   | 370  | 3.3  |      |      |     |     |     |          |
| 03   | 370  | 3.2  |      |      |     |     |     |          |
| 04   | 370  | 2.9  |      |      |     |     |     |          |
| 05   | 340  | 3.0  |      |      |     |     |     |          |
| 06   | 280  | 2.3  |      |      |     |     |     |          |
| 07   | 260  | 2.7  |      |      |     |     |     |          |
| 08   | 290  | 3.5  |      |      |     |     |     |          |
| 09   | 230  | 5.0  |      |      |     |     |     |          |
| 10   | 220  | 5.7  |      |      |     |     |     |          |
| 11   | 220  | 6.3  |      |      |     |     |     |          |
| 12   | 220  | 6.7  |      |      |     |     |     |          |
| 13   | 220  | 6.6  |      |      |     |     |     |          |
| 14   | 220  | 6.2  |      |      |     |     |     |          |
| 15   | 220  | 5.7  |      |      |     |     |     |          |
| 16   | 220  | 5.2  |      |      |     |     |     |          |
| 17   |      |      |      |      |     |     |     |          |
| 18   |      |      |      |      |     |     |     |          |
| 19   |      |      |      |      |     |     |     |          |
| 20   |      |      |      |      |     |     |     |          |
| 21   |      |      |      |      |     |     |     |          |
| 22   |      |      |      |      |     |     |     |          |
| 23   | 380  | 3.4  |      |      |     |     |     |          |

Time: 30.0°E.  
Sweep: Manual operation.  
Average values.

Table 63

Moscow, U.S.S.R. (55.9°N, 37.3°E) December 1945

| Time | h'F2 | f°F2 | h'F1 | f°F1 | h'E | f°E | f2s | f2-M5000 |
|------|------|------|------|------|-----|-----|-----|----------|
| 00   | 380  | 2.6  |      |      |     |     |     |          |
| 01   | 370  | 2.7  |      |      |     |     |     |          |
| 02   | 370  | 2.8  |      |      |     |     |     |          |
| 03   | 370  | 2.7  |      |      |     |     |     |          |
| 04   | 360  | 2.6  |      |      |     |     |     |          |
| 05   | 350  | 2.5  |      |      |     |     |     |          |
| 06   | 330  | 2.5  |      |      |     |     |     |          |
| 07   | 310  | 2.8  |      |      |     |     |     |          |
| 08   | 230  | 5.0  |      |      |     |     |     |          |
| 09   | 230  | 6.3  |      |      |     |     |     |          |
| 10   | 220  | 6.8  |      |      |     |     |     |          |
| 11   | 220  | 7.2  |      |      |     |     |     |          |
| 12   | 220  | 7.1  |      |      |     |     |     |          |
| 13   | 220  | 7.1  |      |      |     |     |     |          |
| 14   | 220  | 6.7  |      |      |     |     |     |          |
| 15   | 220  | 5.8  |      |      |     |     |     |          |
| 16   | 220  | 5.0  |      |      |     |     |     |          |
| 17   | 240  | 4.4  |      |      |     |     |     |          |
| 18   | 260  | 3.2  |      |      |     |     |     |          |
| 19   | 290  | 2.7  |      |      |     |     |     |          |
| 20   | 330  | 2.6  |      |      |     |     |     |          |
| 21   | 370  | 2.5  |      |      |     |     |     |          |
| 22   | 370  | 2.4  |      |      |     |     |     |          |
| 23   | 370  |      |      |      |     |     |     |          |

Time: 30.0°E.  
Sweep: 1.8 Mc to 10.0 Mc in ten minutes.  
Average values.

Table 62

Leningrad, U.S.S.R. (LDES) (59.9°N, 30.3°E) December 1945

| Time | h'F2 | f°F2 | h'F1 | f°F1 | h'E | f°E | f2s | f2-M5000 |
|------|------|------|------|------|-----|-----|-----|----------|
| 00   | 460  | 2.9  |      |      |     |     |     |          |
| 01   | 370  | 2.9  |      |      |     |     |     |          |
| 02   | 360  | 2.9  |      |      |     |     |     |          |
| 03   | 350  | 3.0  |      |      |     |     |     |          |
| 04   | 360  | 3.1  |      |      |     |     |     |          |
| 05   | 350  | 3.5  |      |      |     |     |     |          |
| 06   | 320  | 4.0  |      |      |     |     |     |          |
| 07   |      |      |      |      |     |     |     |          |
| 08   | 290  | 4.9  |      |      |     |     |     |          |
| 09   | 270  | 5.6  |      |      |     |     |     |          |
| 10   | 280  | 5.9  |      |      |     |     |     |          |
| 11   | 280  | 5.9  |      |      |     |     |     |          |
| 12   | 280  | 6.0  |      |      |     |     |     |          |
| 13   | 280  | 6.2  |      |      |     |     |     |          |
| 14   | 280  | 5.9  |      |      |     |     |     |          |
| 15   | 290  | 5.6  |      |      |     |     |     |          |
| 16   | 290  | 5.3  |      |      |     |     |     |          |
| 17   | 280  | 4.8  |      |      |     |     |     |          |
| 18   |      |      |      |      |     |     |     |          |
| 19   | 300  | 3.9  |      |      |     |     |     |          |
| 20   | 310  | 3.6  |      |      |     |     |     |          |
| 21   | 330  | 3.3  |      |      |     |     |     |          |
| 22   | 370  | 2.6  |      |      |     |     |     |          |
| 23   | 350  | 2.9  |      |      |     |     |     |          |

Time: 30.0°E.  
Sweep: 1.5 Mc to 9.0 Mc in five to ten minutes.  
Average values.

Table 64

Alma Ata, U.S.S.R. (43.2°N, 76.9°E) December 1945

| Time | h'F2 | f°F2 | h'F1 | f°F1 | h'E | f°E | f2s | f2-M5000 |
|------|------|------|------|------|-----|-----|-----|----------|
| 00   | 210  | 3.3  |      |      |     |     |     |          |
| 01   | 220  | 3.4  |      |      |     |     |     |          |
| 02   | 220  | 3.1  |      |      |     |     |     |          |
| 03   | 220  | 3.1  |      |      |     |     |     |          |
| 04   | 210  | 3.4  |      |      |     |     |     |          |
| 05   | 200  | 3.4  |      |      |     |     |     |          |
| 06   | 210  | 4.1  |      |      |     |     |     |          |
| 07   | 200  | 5.2  |      |      | 100 | 2.6 |     |          |
| 08   | 200  | 6.4  |      |      | 110 | 2.9 |     |          |
| 09   | 200  | 6.7  |      |      | 110 | 3.5 |     |          |
| 10   | 200  | 7.2  |      |      | 110 | 3.2 |     |          |
| 11   | 200  | 6.8  |      |      | 100 | 3.5 |     |          |
| 12   | 200  | 7.2  |      |      | 110 | 4.0 |     |          |
| 13   | 200  | 6.9  |      |      | 110 | 3.7 |     |          |
| 14   | 200  | 5.8  |      |      | 110 | 3.4 |     |          |
| 15   | 200  | 6.8  |      |      | 100 | 4.2 |     |          |
| 16   | 200  | 6.2  |      |      | 110 | 2.6 |     |          |
| 17   | 200  | 5.5  |      |      |     |     |     |          |
| 18   | 210  | 4.6  |      |      |     |     |     |          |
| 19   | 210  | 3.9  |      |      |     |     |     |          |
| 20   | 210  | 3.4  |      |      |     |     |     |          |
| 21   | 220  | 3.5  |      |      |     |     |     |          |
| 22   | 210  | 3.4  |      |      |     |     |     |          |
| 23   | 210  | 3.2  |      |      |     |     |     |          |

Time: 75.0°E.  
Sweep: 2.0 Mc to 14.0 Mc in ten to twenty minutes. Manual operation.  
Average values.



Table 66

Leyte, Philippine Is. (11.0°N, 126.0°E)

December 1945

| Time | h <sup>1</sup> 2 | f <sup>1</sup> 2 | h <sup>1</sup> 1 | f <sup>1</sup> 1 | h <sup>1</sup> 0 | f <sup>1</sup> 0 | f <sup>1</sup> 00 |
|------|------------------|------------------|------------------|------------------|------------------|------------------|-------------------|
| 00   |                  | 5.6              |                  |                  |                  |                  | 3.3               |
| 01   |                  | 4.8              |                  |                  |                  |                  | 3.3               |
| 02   |                  | 4.2              |                  |                  |                  |                  | 2.9               |
| 03   |                  | 3.6              |                  |                  |                  |                  | 2.7               |
| 04   |                  | 2.8              |                  |                  |                  |                  | 2.6               |
| 05   |                  | 2.6              |                  |                  |                  |                  | 2.1               |
| 06   |                  | 2.6              |                  |                  |                  |                  | 2.2               |
| 07   |                  | 2.6              |                  |                  |                  |                  | 3.1               |
| 08   |                  | 2.6              |                  |                  |                  |                  | 3.1               |
| 09   |                  | 2.6              |                  |                  |                  |                  | 3.1               |
| 10   |                  | 2.6              |                  |                  |                  |                  | 3.1               |
| 11   |                  | 2.6              |                  |                  |                  |                  | 3.1               |
| 12   |                  | 2.6              |                  |                  |                  |                  | 3.1               |
| 13   |                  | 2.6              |                  |                  |                  |                  | 3.1               |
| 14   |                  | 2.6              |                  |                  |                  |                  | 3.1               |
| 15   |                  | 2.6              |                  |                  |                  |                  | 3.1               |
| 16   |                  | 2.6              |                  |                  |                  |                  | 3.1               |
| 17   |                  | 2.6              |                  |                  |                  |                  | 3.1               |
| 18   |                  | 2.6              |                  |                  |                  |                  | 3.1               |
| 19   |                  | 2.6              |                  |                  |                  |                  | 3.1               |
| 20   |                  | 2.6              |                  |                  |                  |                  | 3.1               |
| 21   |                  | 2.6              |                  |                  |                  |                  | 3.1               |
| 22   |                  | 2.6              |                  |                  |                  |                  | 3.1               |
| 23   |                  | 2.6              |                  |                  |                  |                  | 3.1               |

Time: 1200G.  
Sweep: Manual operation.  
Median values.

Subsequent months published in this issue have been received at 136°E.

Table 67

(Revision of previously published provisional data)

St. John's, Newfoundland (47.7°N, 52.7°W)

October 1945

| Time | h <sup>1</sup> 2 | f <sup>1</sup> 2 | h <sup>1</sup> 1 | f <sup>1</sup> 1 | h <sup>1</sup> 0 | f <sup>1</sup> 0 | f <sup>1</sup> 00 |
|------|------------------|------------------|------------------|------------------|------------------|------------------|-------------------|
| 00   | 250              | 3.6              |                  |                  |                  |                  | 3.3               |
| 01   | 260              | 3.2              |                  |                  |                  |                  | 3.1               |
| 02   | 250              | 3.0              |                  |                  |                  |                  | 3.3               |
| 03   | 260              | 2.6              |                  |                  |                  |                  | 3.2               |
| 04   | 260              | 2.4              |                  |                  |                  |                  | 3.3               |
| 05   | 270              | 2.2              |                  |                  |                  |                  | 3.2               |
| 06   | 286              | 2.4              |                  |                  |                  |                  | 3.3               |
| 07   | 240              | 5.4              |                  |                  |                  |                  | 3.4               |
| 08   | 240              | 6.3              |                  |                  |                  |                  | 3.4               |
| 09   | 240              | 7.2              |                  |                  |                  |                  | 3.4               |
| 10   | 240              | 7.8              |                  |                  |                  |                  | 3.4               |
| 11   | 260              | 8.6              |                  |                  |                  |                  | 3.4               |
| 12   | 260              | 8.8              |                  |                  |                  |                  | 3.4               |
| 13   | 260              | 8.8              |                  |                  |                  |                  | 3.4               |
| 14   | 240              | 8.5              |                  |                  |                  |                  | 3.4               |
| 15   | 240              | 8.6              |                  |                  |                  |                  | 3.4               |
| 16   | 230              | 8.7              |                  |                  |                  |                  | 3.4               |
| 17   | 235              | 8.4              |                  |                  |                  |                  | 3.4               |
| 18   | 230              | 7.3              |                  |                  |                  |                  | 3.4               |
| 19   | 220              | 6.3              |                  |                  |                  |                  | 3.4               |
| 20   | 220              | 5.2              |                  |                  |                  |                  | 3.4               |
| 21   | 240              | 4.6              |                  |                  |                  |                  | 3.2               |
| 22   | 245              | 4.5              |                  |                  |                  |                  | 3.1               |
| 23   | 255              | 3.6              |                  |                  |                  |                  | 3.3               |

Time: 55.6°N.  
Sweep: Manual operation.  
Median values.

Table 66

(Revision of previously published provisional data)

Seardovck, U.S.S.R. (56.7°N, 61.1°E)

October 1945

| Time | h <sup>1</sup> 2 | f <sup>1</sup> 2 | h <sup>1</sup> 1 | f <sup>1</sup> 1 | h <sup>1</sup> 0 | f <sup>1</sup> 0 | f <sup>1</sup> 00 |
|------|------------------|------------------|------------------|------------------|------------------|------------------|-------------------|
| 00   |                  | 270              |                  |                  |                  |                  | 3.3               |
| 01   |                  | 270              |                  |                  |                  |                  | 3.3               |
| 02   |                  | 270              |                  |                  |                  |                  | 3.2               |
| 03   |                  | 270              |                  |                  |                  |                  | 3.1               |
| 04   |                  | 270              |                  |                  |                  |                  | 3.1               |
| 05   |                  | 260              |                  |                  |                  |                  | 2.6               |
| 06   |                  | 230              |                  |                  |                  |                  | 3.4               |
| 07   |                  | 200              |                  |                  |                  |                  | 6.2               |
| 08   |                  | 200              |                  |                  |                  |                  | 6.6               |
| 09   |                  | 200              |                  |                  |                  |                  | 7.1               |
| 10   |                  | 200              |                  |                  |                  |                  | 8.2               |
| 11   |                  | 190              |                  |                  |                  |                  | 9.4               |
| 12   |                  | 190              |                  |                  |                  |                  | 8.3               |
| 13   |                  | 190              |                  |                  |                  |                  | 8.4               |
| 14   |                  | 200              |                  |                  |                  |                  | 8.1               |
| 15   |                  | 200              |                  |                  |                  |                  | 7.8               |
| 16   |                  | 190              |                  |                  |                  |                  | 7.0               |
| 17   |                  | 190              |                  |                  |                  |                  | 6.6               |
| 18   |                  | 200              |                  |                  |                  |                  | 6.0               |
| 19   |                  | 200              |                  |                  |                  |                  | 6.0               |
| 20   |                  | 210              |                  |                  |                  |                  | 4.4               |
| 21   |                  | 220              |                  |                  |                  |                  | 3.8               |
| 22   |                  | 230              |                  |                  |                  |                  | 3.7               |
| 23   |                  | 260              |                  |                  |                  |                  | 3.3               |

Time: 80.0°E.  
Sweep: 1.5 Mc to 14.0 Mc on five to thirteen minutes. Manual operation.  
Median values.

Table 68

Alma Ata, U.S.S.R. (43.2°N, 76.9°E)

September 1945

| Time | h <sup>1</sup> 2 | f <sup>1</sup> 2 | h <sup>1</sup> 1 | f <sup>1</sup> 1 | h <sup>1</sup> 0 | f <sup>1</sup> 0 | f <sup>1</sup> 00 |
|------|------------------|------------------|------------------|------------------|------------------|------------------|-------------------|
| 00   | 210              | 4.8              |                  |                  |                  |                  | 4.8               |
| 01   | 220              | 4.6              |                  |                  |                  |                  | 4.5               |
| 02   | 220              | 4.5              |                  |                  |                  |                  | 4.4               |
| 03   | 220              | 4.4              |                  |                  |                  |                  | 4.2               |
| 04   | 220              | 4.2              |                  |                  |                  |                  | 4.2               |
| 05   | 220              | 4.7              |                  |                  |                  |                  | 5.1               |
| 06   | 210              | 5.1              |                  |                  |                  |                  | 5.8               |
| 07   | 210              | 6.2              |                  |                  |                  |                  | 6.2               |
| 08   | 210              | 6.2              |                  |                  |                  |                  | 6.2               |
| 09   | 200              | 7.0              |                  |                  |                  |                  | 7.0               |
| 10   | 210              | 7.2              |                  |                  |                  |                  | 7.2               |
| 11   | 200              | 7.4              |                  |                  |                  |                  | 7.4               |
| 12   | 200              | 7.0              |                  |                  |                  |                  | 7.0               |
| 13   | 210              | 6.8              |                  |                  |                  |                  | 6.8               |
| 14   | 210              | 6.8              |                  |                  |                  |                  | 6.8               |
| 15   | 220              | 6.2              |                  |                  |                  |                  | 6.2               |
| 16   | 220              | 6.6              |                  |                  |                  |                  | 6.6               |
| 17   | 190              | 6.3              |                  |                  |                  |                  | 6.3               |
| 18   | 200              | 6.1              |                  |                  |                  |                  | 6.1               |
| 19   | 200              | 6.1              |                  |                  |                  |                  | 6.1               |
| 20   | 200              | 5.8              |                  |                  |                  |                  | 5.8               |
| 21   | 200              | 5.3              |                  |                  |                  |                  | 5.3               |
| 22   | 200              | 5.1              |                  |                  |                  |                  | 5.1               |
| 23   | 210              | 4.9              |                  |                  |                  |                  | 4.9               |

Time: 75.0°E.  
Sweep: 2.0 Mc to 14.0 Mc in ten to twenty minutes. Manual operation.  
Average values.

TABLE 69

## IONOSPHERE DATA - I

Washington, D.C. Ionosphere Station

(Location)

National Bureau Of Standards

(Institution)

Hourly values of  $h'F_2$  in kmfor May 1946  
(Month)Records measured by: J. MC.  
J. L. S.

TIME: 75° W MERIDIAN

| Day    | 00    | 01    | 02    | 03    | 04    | 05    | 06    | 07    | 08    | 09    | 10    | 11    | 12    | 13    | 14    | 15    | 16  | 17  | 18  | 19    | 20    | 21    | 22    | 23  |
|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-----|-----|-----|-------|-------|-------|-------|-----|
| 1      | 280   | 300   | 300   | 290   | 280   | 290   | 280   | 270   | 310   | (370) | 390   | 350   | 340   | 340   | 340   | 340   | 330 | 270 | 270 | 240   | 230   | 220   | 290   | 290 |
| 2      | 290   | 500   | 300   | 290   | 280   | 290   | 250   | 270   | 300   | 280   | 300   | 340   | 370   | 330   | 330   | 330   | 330 | 270 | 270 | 250   | 270   | 290   | 250   | 270 |
| 3      | 280   | 280   | 260   | 280   | 270   | 270   | 250   | 310   | 340   | 330   | 400   | 350   | 370   | 380   | 360   | 350   | 330 | 300 | 280 | 280   | 240   | 240   | 280   | 270 |
| 4      | 290   | 300   | 290   | 280   | 250   | 290   | 290   | 310   | 480   | (450) | (630) | 570   | 570   | (440) | (420) | (400) | 360 | 340 | 370 | 250   | 260   | 270   | 270   | 280 |
| 5      | 310   | 290   | 270   | 370   | (310) | 270   | 240   | (260) | 250   | 270   | 330   | 350   | 330   | 330   | 310   | 320   | 310 | 300 | 270 | 240   | 240   | 230   | 270   | 280 |
| 6      | 300   | 260   | 330   | 340   | 350   | 330   | 460   | 600   | 600   | 600   | 730   | 830   | 540   | 460   | 400   | 460   | 380 | 340 | 280 | 270   | 260   | 280   | 300   | 270 |
| 7      | 290   | (360) | (430) | (340) | (420) | 300   | G     | G     | G     | G     | G     | G     | 800   | 890   | (610) | (540) | 450 | 430 | 370 | 270   | 270   | (280) | 370   | 250 |
| 8      | 270   | 290   | 290   | 280   | 340   | (330) | 270   | G     | G     | G     | G     | C     | G     | G     | 670   | 550   | 570 | 440 | 350 | 280   | 250   | 260   | 250   | 300 |
| 9      | 280   | 320   | 320   | 330   | 330   | 300   | 250   | 570   | 560   | G     | 700   | G     | G     | G     | 670   | 540   | 490 | 440 | 320 | 290   | 260   | 270   | 250   | 260 |
| 10     | 270   | 300   | 300   | 370   | 290   | 220   | 300   | G     | 540   | 480   | 380   | (330) | 370   | 400   | 320   | 330   | 320 | 300 | 270 | 250   | 240   | 260   | 290   | 310 |
| 11     | 310   | 280   | 320   | 280   | 350   | 320   | 280   | 340   | 260   | (280) | 350   | 540   | 470   | 570   | 420   | 380   | 380 | 320 | 270 | 250   | 260   | 260   | 270   | 270 |
| 12     | 280   | 270   | 260   | 250   | 280   | 290   | 200   | 470   | 420   | 570   | 570   | 440   | 560   | (470) | 420   | 370   | 350 | A   | C   | 260   | 270   | 280   | 290   | 290 |
| 13     | 300   | 270   | 260   | 250   | 260   | 260   | 240   | 270   | 270   | 320   | 310   | (330) | 330   | 330   | 340   | 310   | 290 | C   | C   | C     | C     | C     | C     | C   |
| 14     | C     | C     | C     | C     | C     | C     | C     | C     | C     | (480) | 460   | 440   | 390   | 4     | A     | 370   | 350 | 310 | 270 | (260) | 280   | 280   | (300) | 300 |
| 15     | (310) | (300) | 280   | 260   | (300) | 240   | 280   | 260   | 300   | 330   | 310   | 340   | (320) | 320   | 320   | 320   | 320 | 300 | 270 | 270   | 250   | 250   | 260   | 260 |
| 16     | 270   | 290   | 290   | 280   | 240   | 250   | 240   | 330   | 320   | 400   | 520   | 380   | (360) | 400   | 400   | 380   | C   | C   | 270 | 260   | (240) | (290) | 280   | 280 |
| 17     | 280   | 270   | 250   | 250   | 290   | 250   | 290   | (280) | 410   | (470) | 370   | 370   | (480) | 400   | (390) | 340   | 420 | 380 | 330 | 270   | (300) | 280   | 300   | 310 |
| 18     | 300   | 260   | 230   | 240   | 300   | 260   | 290   | 620   | 330   | 390   | G     | (440) | 420   | 430   | C     | C     | C   | C   | C   | C     | C     | C     | C     | C   |
| 19     | C     | C     | C     | C     | C     | C     | C     | C     | C     | C     | C     | (540) | 360   | 430   | 390   | 320   | 340 | 310 | 300 | (240) | (240) | 240   | 290   | 290 |
| 20     | 300   | (300) | (280) | 310   | 290   | 270   | 270   | (270) | 270   | 300   | 280   | 330   | 330   | 330   | 330   | 320   | 320 | 320 | 310 | 250   | 250   | 250   | 260   | 260 |
| 21     | 270   | 270   | 290   | 320   | 310   | 310   | (250) | 450   | G     | (680) | 600   | 650   | 540   | 550   | 440   | 440   | 460 | 390 | 300 | 260   | 260   | 250   | 270   | 280 |
| 22     | 350   | (350) | 330   | 310   | 310   | 290   | 250   | 590   | 460   | 580   | 390   | 630   | (550) | (470) | (400) | 490   | 370 | 360 | 320 | 270   | 260   | 280   | 280   | 280 |
| 23     | 300   | 270   | 270   | 300   | 320   | 280   | 220   | 520   | (420) | (420) | 470   | 380   | (450) | (450) | 380   | 350   | 360 | 300 | 280 | 240   | 230   | 260   | 280   | 280 |
| 24     | 310   | 320   | 290   | 280   | 250   | 250   | 240   | 440   | 610   | 450   | 570   | (420) | (440) | 430   | 400   | 390   | 380 | 350 | 280 | (280) | C     | C     | 260   | 280 |
| 25     | 280   | 300   | 310   | 270   | 290   | 290   | 370   | 500   | 710   | (550) | 480   | 420   | 450   | 400   | 360   | 350   | 310 | 270 | 290 | 240   | 240   | 240   | 280   | 280 |
| 26     | 270   | 240   | 280   | 270   | 250   | 220   | 380   | 430   | 390   | 370   | 430   | 460   | (450) | (430) | 510   | 440   | 410 | 380 | 340 | 310   | (250) | (230) | 250   | 280 |
| 27     | 270   | 260   | 250   | 260   | 250   | C     | C     | C     | C     | (380) | 430   | (420) | 430   | 430   | 420   | 400   | 360 | 340 | 300 | 270   | 230   | (260) | 280   | 310 |
| 28     | 300   | 310   | 310   | 280   | 270   | 280   | 330   | 350   | 330   | 340   | (370) | (370) | (390) | (390) | (360) | C     | C   | C   | C   | C     | C     | (250) | 280   | 270 |
| 29     | 260   | 280   | 280   | 280   | 260   | 270   | 330   | 330   | 390   | 400   | (450) | 450   | 440   | 430   | 400   | 380   | 400 | 340 | 300 | 260   | 240   | 240   | 260   | 280 |
| 30     | 270   | 260   | 260   | 270   | 260   | 230   | 350   | 340   | 400   | (390) | (470) | 450   | (490) | 410   | 400   | 400   | 390 | 390 | 330 | 250   | 240   | 230   | 260   | 280 |
| 31     | 300   | 310   | 290   | 280   | 270   | 230   | (400) | 480   | 460   | (550) | (550) | 480   | (490) | 450   | 410   | 400   | 370 | 330 | 300 | 270   | 260   | 270   | 270   | 270 |
| Sum    |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |     |     |     |       |       |       |       |     |
| Median | 290   | 290   | 290   | 280   | 290   | 275   | 285   | 405   | 405   | 400   | 465   | 430   | 440   | 430   | 400   | 380   | 355 | 330 | 300 | 260   | 250   | 260   | 280   | 280 |



TABLE 70

## IONOSPHERE DATA-2

Washington, D.C. Ionosphere Station

National Bureau Of Standards

Records measured by: J.M.C.

J.L.S.

Hourly values of  $f^oF_2$  (M) for May 1964 (month)

TIME: 75°W MERIDIAN

| Day    | 00                 | 01                 | 02                 | 03                 | 04                 | 05                 | 06                 | 07               | 08                 | 09                 | 10                 | 11                 | 12                 | 13                 | 14                 | 15                 | 16                 | 17               | 18                 | 19                  | 20                 | 21                 | 22                 | 23                 |
|--------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|------------------|--------------------|---------------------|--------------------|--------------------|--------------------|--------------------|
| 1      | 5.3                | 4.9 <sup>F</sup>   | 4.7 <sup>F</sup>   | 4.4                | 4.5                | 4.7                | 6.0                | 6.6 <sup>H</sup> | 6.8                | (7.4)              | 7.8                | 8.0                | 8.8                | 9.0                | 8.7                | 8.8                | 8.7                | 8.6              | 8.4                | (7.6)               | (6.8)              | 6.5                | 6.0                | 6.0                |
| 2      | (5.2) <sup>J</sup> | 5.4                | 5.2                | 4.8                | 4.3                | 4.3                | 5.9                | 7.0              | 7.6                | 8.0                | 8.0                | 8.2                | 8.4                | 8.7                | 9.0                | 8.6                | [8.5] <sup>C</sup> | 8.4              | 8.5                | 8.5                 | 8.0                | 8.0                | 6.6                | 6.0                |
| 3      | 5.8                | 5.6                | 5.0                | 5.0                | 4.3                | 4.2                | 5.2                | 5.8              | 6.4                | 7.0                | 7.3                | 7.6                | 7.6                | 7.8                | 8.2                | 8.3                | 8.6                | 8.4              | 7.8                | 7.5                 | (7.2)              | (6.4)              | (6.3) <sup>J</sup> | 6.0                |
| 4      | 5.8                | 5.8                | 5.7                | 5.5 <sup>J</sup>   | 5.0                | 4.4                | 5.2                | 5.7 <sup>H</sup> | 5.6                | 5.6                | (5.4)              | (6.0)              | 6.4                | [6.6] <sup>C</sup> | [6.9] <sup>C</sup> | [7.0] <sup>C</sup> | 7.2                | 7.0              | 6.8                | 6.8                 | 6.2                | 6.0                | 5.7                | 5.3                |
| 5      | 5.0                | 5.0                | (4.5) <sup>F</sup> | (4.0)              | 3.6 <sup>F</sup>   | 4.0 <sup>F</sup>   | 5.7                | 6.1              | 7.0                | 7.4                | 8.2                | 8.4                | 9.2                | 9.2                | 9.2                | 9.2                | 9.2                | 9.2              | 9.4                | 9.0                 | [8.5] <sup>C</sup> | 7.6                | 7.0                | 6.8                |
| 6      | (6.2) <sup>J</sup> | 6.5 <sup>K</sup>   | 4.2 <sup>F</sup>   | (2.9) <sup>F</sup> | 3.7 <sup>K</sup>   | 4.0 <sup>K</sup>   | 4.1 <sup>K</sup>   | 4.3 <sup>K</sup> | 4.2 <sup>F</sup>   | 5.1 <sup>K</sup>   | (5.1) <sup>K</sup> | (5.3) <sup>K</sup> | 5.8 <sup>K</sup>   | (6.0) <sup>K</sup> | 6.2 <sup>K</sup>   | 6.2 <sup>K</sup>   | 6.4 <sup>K</sup>   | 6.5 <sup>K</sup> | 6.4 <sup>K</sup>   | 6.6 <sup>K</sup>    | 6.6 <sup>K</sup>   | 6.0 <sup>K</sup>   | 5.8 <sup>K</sup>   | 5.5 <sup>K</sup>   |
| 7      | 3.7 <sup>F</sup>   | 1.9 <sup>F</sup>   | (1.5) <sup>F</sup> | (1.3) <sup>F</sup> | (1.4) <sup>F</sup> | 2.2 <sup>F</sup>   | 3.3 <sup>F</sup>   | 3.8 <sup>F</sup> | 4.1 <sup>F</sup>   | 4.3 <sup>F</sup>   | 4.5 <sup>F</sup>   | 4.6 <sup>F</sup>   | (5.0) <sup>K</sup> | 4.9 <sup>K</sup>   | [5.1] <sup>C</sup> | [5.2] <sup>C</sup> | 5.3 <sup>K</sup>   | 5.7 <sup>K</sup> | (6.1) <sup>K</sup> | (6.0) <sup>K</sup>  | (6.3) <sup>K</sup> | [6.1] <sup>C</sup> | (6.0) <sup>K</sup> | (5.8) <sup>K</sup> |
| 8      | 4.9 <sup>K</sup>   | 5.1 <sup>K</sup>   | (3.8) <sup>K</sup> | (2.5) <sup>F</sup> | (2.0) <sup>F</sup> | (2.9) <sup>F</sup> | 3.5 <sup>F</sup>   | 3.8 <sup>F</sup> | 4.1 <sup>F</sup>   | 4.3 <sup>F</sup>   | 4.4 <sup>F</sup>   | C <sup>K</sup>     | 4.8 <sup>K</sup>   | 4.8 <sup>K</sup>   | 5.0 <sup>K</sup>   | 5.2 <sup>K</sup>   | 5.3 <sup>K</sup>   | 5.4 <sup>K</sup> | 5.7 <sup>K</sup>   | 6.0 <sup>K</sup>    | 6.0 <sup>K</sup>   | 5.8 <sup>K</sup>   | 5.1 <sup>K</sup>   | 4.6 <sup>K</sup>   |
| 9      | (4.3) <sup>K</sup> | 3.3 <sup>F</sup>   | (3.1) <sup>F</sup> | 2.2 <sup>F</sup>   | 2.1 <sup>F</sup>   | 3.2 <sup>K</sup>   | 4.0 <sup>K</sup>   | 4.5 <sup>K</sup> | 4.6 <sup>K</sup>   | 4.5 <sup>K</sup>   | 5.0 <sup>K</sup>   | 4.7 <sup>K</sup>   | 4.8 <sup>K</sup>   | 4.7 <sup>K</sup>   | 4.9 <sup>K</sup>   | 5.1 <sup>K</sup>   | 5.3 <sup>K</sup>   | 5.4 <sup>K</sup> | 5.3 <sup>K</sup>   | 5.2 <sup>K</sup>    | 5.3 <sup>K</sup>   | 4.7 <sup>K</sup>   | 4.5 <sup>K</sup>   | 4.0 <sup>K</sup>   |
| 10     | (3.6) <sup>F</sup> | (2.5) <sup>F</sup> | 2.0 <sup>F</sup>   | 2.2 <sup>F</sup>   | 2.4 <sup>F</sup>   | 3.4 <sup>K</sup>   | 4.2 <sup>K</sup>   | 4.2 <sup>K</sup> | 4.2 <sup>K</sup>   | 5.2 <sup>K</sup>   | (5.9) <sup>K</sup> | 6.4 <sup>K</sup>   | 6.8                | 6.8                | 7.0                | 7.2                | 7.0                | 7.2              | 7.4                | 7.1                 | 7.0                | 6.2                | 5.7                | 5.6                |
| 11     | 5.7                | 5.6 <sup>K</sup>   | (5.3) <sup>K</sup> | 3.8 <sup>F</sup>   | 2.4 <sup>F</sup>   | 3.1 <sup>F</sup>   | 4.0 <sup>K</sup>   | 5.2 <sup>K</sup> | 6.4 <sup>K</sup>   | (5.3) <sup>K</sup> | (5.3) <sup>K</sup> | 5.4 <sup>K</sup>   | 5.6 <sup>K</sup>   | 5.6 <sup>K</sup>   | 6.2                | 6.5                | 6.6                | 6.4              | 6.2                | 6.4                 | 6.5                | 6.0                | 5.8                | 5.0 <sup>F</sup>   |
| 12     | 4.7 <sup>F</sup>   | (4.4) <sup>F</sup> | 4.1 <sup>F</sup>   | 3.6 <sup>F</sup>   | 3.0 <sup>F</sup>   | 3.4 <sup>F</sup>   | 4.6 <sup>F</sup>   | 4.5 <sup>F</sup> | 5.1                | 5.0                | 5.1 <sup>F</sup>   | (5.5)              | 5.3                | [5.6] <sup>C</sup> | (6.0)              | 6.1                | 6.5                | (6.8)            | [6.7] <sup>C</sup> | 6.5                 | 6.5                | 5.7                | 5.4                | 5.2                |
| 13     | 5.1                | 5.0                | 4.1 <sup>F</sup>   | 3.6 <sup>F</sup>   | 2.7 <sup>F</sup>   | 3.4 <sup>F</sup>   | 4.7 <sup>F</sup>   | 6.3              | 6.8                | 6.8                | 7.4                | 7.3                | 8.0                | 8.2                | 8.2                | 8.8                | 8.7                | 8.0              | 8.2                | 8.2                 | 8.2                | 7.7                | 7.2                | 6.2                |
| 14     | C                  | C                  | C                  | C                  | C                  | C                  | C                  | C                | C                  | 5.4                | 5.4                | 5.7                | 5.7                | 7.4                | 7.6                | 7.9                | 7.7                | 8.0              | 8.2                | 8.2                 | 7.3                | 6.5                | 6.0                | 5.7                |
| 15     | 4.5                | (4.3)              | 3.7 <sup>F</sup>   | 3.9 <sup>F</sup>   | 3.3 <sup>F</sup>   | 3.7 <sup>F</sup>   | 5.0                | 5.0 <sup>H</sup> | 6.4                | (6.8)              | 7.0                | 7.6                | 7.4                | 7.6                | 7.9                | (7.4)              | 7.7                | 8.0              | 8.2                | 8.2                 | 7.3                | 6.5                | (6.0) <sup>J</sup> | 5.4                |
| 16     | 5.4                | 5.0                | 5.0                | 4.9                | 4.3                | 4.5                | 5.4                | 5.0 <sup>H</sup> | 5.4                | 5.6                | 5.5                | (6.0)              | (6.4)              | 6.2                | 6.3                | 6.6                | C                  | C                | C                  | 6.0                 | 6.0                | (5.8) <sup>J</sup> | (5.8) <sup>J</sup> | 5.4                |
| 17     | 5.3                | (5.1)              | (4.5)              | (3.5)              | 2.8                | 3.8                | 5.1                | 5.4              | (5.7)              | (5.5)              | [5.7] <sup>C</sup> | (5.8)              | (5.9)              | (6.2)              | 6.7                | (6.2)              | 5.3                | 5.6              | 6.0                | 6.0                 | (5.6)              | 5.7                | 5.4                | 5.2                |
| 18     | C                  | C                  | C                  | C                  | C                  | C                  | C                  | C                | C                  | C                  | C                  | (5.8)              | (5.9)              | 5.9                | C                  | C                  | C                  | C                | C                  | C                   | C                  | C                  | C                  | C                  |
| 19     | 5.9                | (5.8)              | 4.9                | 4.8                | 4.3                | 4.8                | (7.0)              | (6.6)            | 7.6                | 8.4                | (8.0)              | 8.2                | 8.6                | 8.6                | 8.4                | (8.4)              | 8.0                | 8.0 <sup>K</sup> | 9.0 <sup>K</sup>   | (10.2) <sup>K</sup> | [9.7] <sup>K</sup> | (7.8) <sup>K</sup> | (7.4) <sup>K</sup> | 6.2 <sup>K</sup>   |
| 20     | 5.3 <sup>K</sup>   | 4.5 <sup>K</sup>   | 4.2 <sup>K</sup>   | 3.2 <sup>F</sup>   | 2.2 <sup>F</sup>   | 3.3 <sup>F</sup>   | (4.0) <sup>K</sup> | 4.3 <sup>F</sup> | 4.7 <sup>F</sup>   | (4.7) <sup>K</sup> | 5.0 <sup>K</sup>   | 5.0 <sup>K</sup>   | 5.4 <sup>K</sup>   | [6.7] <sup>C</sup> | 6.4 <sup>K</sup>   | 5.8 <sup>K</sup>   | 6.4                | 6.2              | 6.6                | 6.8                 | 6.4                | 5.6                | (5.6)              | 5.2                |
| 21     | (4.6) <sup>K</sup> | (3.5) <sup>F</sup> | (2.8) <sup>F</sup> | 2.8 <sup>F</sup>   | 2.6 <sup>F</sup>   | 3.6 <sup>F</sup>   | 4.0 <sup>K</sup>   | 4.5 <sup>K</sup> | 4.9 <sup>K</sup>   | 5.3 <sup>K</sup>   | (5.8) <sup>K</sup> | (5.7) <sup>K</sup> | [5.4] <sup>K</sup> | [6.7] <sup>C</sup> | 6.4 <sup>K</sup>   | 5.8 <sup>K</sup>   | 6.4                | 6.2              | 6.6                | 6.8                 | 6.4                | 5.6                | (5.6)              | 5.2                |
| 22     | 4.8 <sup>F</sup>   | 4.5 <sup>F</sup>   | 3.7 <sup>F</sup>   | 2.9 <sup>F</sup>   | 2.1 <sup>F</sup>   | (3.6)              | (4.6)              | 5.0              | (5.2)              | [5.6] <sup>C</sup> | 5.6                | (6.0)              | (6.0) <sup>J</sup> | 6.6                | 7.4                | 7.2                | 7.6                | 8.0              | 8.6                | (8.0)               | (6.6)              | (6.2)              | 5.7                | 5.2                |
| 23     | 4.7 <sup>F</sup>   | 4.6                | 4.3 <sup>F</sup>   | (3.8) <sup>F</sup> | 3.8 <sup>F</sup>   | 3.9 <sup>F</sup>   | 4.5                | 4.8 <sup>F</sup> | 4.8                | 5.4                | 5.3                | (6.3)              | [6.5] <sup>K</sup> | [6.6] <sup>K</sup> | 6.8                | 6.8                | 7.2                | 7.2              | 7.2                | (7.0)               | C                  | C                  | (7.0)              | (6.4)              |
| 24     | (6.0)              | 5.2                | 4.6                | 4.1                | 3.9                | 3.9                | 4.4                | 4.9              | 5.2                | (5.0)              | (5.5)              | (6.2)              | 6.4                | 7.2                | 7.6                | 8.0                | 8.4                | 8.0              | 8.6                | 8.8                 | 7.8                | 7.2                | 6.3 <sup>J</sup>   | (5.8)              |
| 25     | (6.2)              | 4.8                | 4.7                | 4.2                | 3.7                | 4.5                | 5.1                | 5.3              | (5.6)              | 5.7                | (5.5)              | (5.8)              | (5.8) <sup>J</sup> | [5.8] <sup>K</sup> | 6.0                | 6.4                | 6.6                | 7.0              | 7.2                | 7.2                 | 7.2                | 6.4                | (6.2)              | 5.8                |
| 26     | (5.4) <sup>J</sup> | (5.1)              | 4.6                | 4.2                | 3.8 <sup>F</sup>   | C                  | C                  | C                | [6.6] <sup>C</sup> | 6.8                | 6.6                | 6.8                | 6.6                | 6.8                | 6.9                | (7.2)              | 7.2                | 7.4              | 7.6                | (7.9)               | (7.2)              | (6.8)              | (6.1)              | 5.9                |
| 27     | 5.8                | (5.3) <sup>J</sup> | 5.1                | 5.1                | [4.9] <sup>C</sup> | 4.5                | 5.3                | 5.9 <sup>J</sup> | 6.8                | 6.6                | 6.8                | 7.0                | 7.0                | (7.0)              | [7.5] <sup>C</sup> | C                  | C                  | C                | C                  | C                   | C                  | (6.9)              | 6.2                | 6.3                |
| 28     | (5.6)              | 5.2                | 5.0                | 4.7                | 4.3                | 4.3                | 4.9                | 5.6              | 5.9                | (5.9)              | (5.8)              | 6.0                | (6.0)              | 6.2                | 6.5                | (6.4)              | 6.8                | 7.2              | 7.1                | 7.0                 | 7.2                | (6.0)              | 5.8                | 5.2                |
| 29     | (5.2)              | (4.6)              | 4.3 <sup>F</sup>   | 3.8 <sup>F</sup>   | 3.4 <sup>F</sup>   | (3.8) <sup>F</sup> | 4.9                | 5.7              | 5.8                | [5.9] <sup>C</sup> | [5.8] <sup>C</sup> | 5.9                | (6.0)              | 6.6                | 6.6                | 6.6                | 6.8                | 7.2              | 7.2                | 7.6                 | 7.7                | 6.9                | (6.2)              | 6.0                |
| 30     | (5.3)              | 5.4                | 5.2                | 4.5                | 4.2                | 3.9 <sup>H</sup>   | 4.3                | (4.8)            | 5.3                | (5.4)              | [5.3] <sup>K</sup> | 5.7                | 5.8                | 6.0                | 6.3                | 6.0                | 6.4                | 6.4              | 6.4                | 6.8                 | 7.0                | 6.6                | 6.4                | 6.3                |
| 31     |                    |                    |                    |                    |                    |                    |                    |                  |                    |                    |                    |                    |                    |                    |                    |                    |                    |                  |                    |                     |                    |                    |                    |                    |
| Sum    |                    |                    |                    |                    |                    |                    |                    |                  |                    |                    |                    |                    |                    |                    |                    |                    |                    |                  |                    |                     |                    |                    |                    |                    |
| Median | 5.3                | 5.0                | 4.5                | 3.9                | 3.6                | 3.8                | 4.8                | 5.2              | 5.6                | 5.6                | 5.6                | 6.0                | 6.1                | 6.6                | 6.8                | 6.7                | 6.9                | 7.0              | 7.2                | 7.2                 | 6.8                | 6.2                | 6.0                | 5.8                |



Washington, D.C.

Washington, D.C.

# IONOSPHERE DATA-3

## National Bureau Of Standards

Half monthly value of  $^{60}\text{Fe}$  in (Rs) for May 1946  
(Month)

Records measured by: J. M. C.  
J. L. S.

TIME: 75°W MERIDIAN

[illegible]

Washington, D.C.

## ATMOSPHERE DATA- 4

## National Bureau Of Standards

(Insertion)

### Hourly values of $H_{\text{eff}}$

May 1946

Records measured by: J.M.C.  
J.L.S

TIME: 75° W MERIDIAN

[illegible]



## IONOSPHERE DATA-5

Washington, D.C.

**Ionosphere station**

Washington, D.C.

(Location)  
**National Bureau Of Standards**  
(Institution)

**National Bureau Of Standards**

Hourly values of  $\frac{f_0 F_1}{f_0 F_1} \ln \left\{ \frac{M_0}{M_1} \right\}$  for -

May (Month)

৩।

Records measured by: J.M.C.  
J.L.S.

TIME: 75° W MERIDIAN

| Day    | 00 | 01 | 02 | 03 | 04 | 05 | 06                 | 07               | 08               | 09                 | 10                 | 11                 | 12                 | 13               | 14               | 15               | 16               | 17                 | 18    | 19 | 20 | 21 | 22 | 23 |
|--------|----|----|----|----|----|----|--------------------|------------------|------------------|--------------------|--------------------|--------------------|--------------------|------------------|------------------|------------------|------------------|--------------------|-------|----|----|----|----|----|
| 1      |    |    |    |    |    |    | L                  | L                | 76               | 50                 | 5.2                | 5.1                | 5.3                | 5.3 <sup>M</sup> | 5.0              | 5.1 <sup>M</sup> | 49               | L                  | L     |    |    |    |    |    |
| 2      |    |    |    |    |    |    | 4.2                | 50               | 51               | 5.2                | 5.5                | 5.5                | 5.7 <sup>C</sup>   | 5.4              | 5.2              | 5.9              | 4.8 <sup>C</sup> | L                  | L     |    |    |    |    |    |
| 3      |    |    |    |    |    |    | (44)               | (48)             | 50               | 5.3                | (5.3)              | (5.3)              | (5.4)              | 5.4              | 5.2              | 5.2              | 49               | L                  | L     |    |    |    |    |    |
| 4      |    |    |    |    |    |    | L                  | L                | 47               | 47                 | 5.0                | 5.0                | 5.1                | 5.0 <sup>C</sup> | 5.0 <sup>C</sup> | (5.0)            | 49               | 4.5                | L     |    |    |    |    |    |
| 5      |    |    |    |    |    |    | A                  | 44               | 49 <sup>A</sup>  | 5.7                | (5.5)              | (5.5)              | (5.7)              | 5.4              | 5.3              | 5.2 <sup>A</sup> | (5.0)            | L                  |       |    |    |    |    |    |
| 6      |    |    |    |    |    |    | 3.4 <sup>K</sup>   | 40 <sup>K</sup>  | 42 <sup>K</sup>  | 46 <sup>K</sup>    | 48 <sup>K</sup>    | 50 <sup>K</sup>    | 51 <sup>K</sup>    | 51 <sup>K</sup>  | 51 <sup>K</sup>  | 5.2 <sup>K</sup> | 50 <sup>K</sup>  | L                  | L     | K  |    |    |    |    |
| 7      |    |    |    |    |    |    | 3.3 <sup>F</sup>   | 38 <sup>K</sup>  | 41 <sup>K</sup>  | 43 <sup>K</sup>    | 45 <sup>K</sup>    | (4.6)              | 48 <sup>K</sup>    | 48 <sup>K</sup>  | 47 <sup>K</sup>  | 47 <sup>K</sup>  | 47 <sup>K</sup>  | 4.5 <sup>K</sup>   | L     | K  |    |    |    |    |
| 8      |    |    |    |    |    |    | 3.8 <sup>K</sup>   | 41 <sup>K</sup>  | 43 <sup>K</sup>  | 43 <sup>K</sup>    | (4.4) <sup>K</sup> | 47 <sup>K</sup>    | 48 <sup>K</sup>    | 48 <sup>K</sup>  | 48 <sup>K</sup>  | 46 <sup>K</sup>  | 45 <sup>K</sup>  | 4.3 <sup>K</sup>   | (38)  | K  |    |    |    |    |
| 9      |    |    |    |    |    |    | K                  | 41 <sup>K</sup>  | 44 <sup>K</sup>  | 45 <sup>K</sup>    | 47 <sup>K</sup>    | 47 <sup>K</sup>    | 48 <sup>K</sup>    | 47 <sup>K</sup>  | 46 <sup>K</sup>  | 44 <sup>K</sup>  | 43 <sup>K</sup>  | 41 <sup>K</sup>    | (37)  | K  |    |    |    |    |
| 10     |    |    |    |    |    |    | L <sup>K</sup>     | 42 <sup>K</sup>  | 43 <sup>K</sup>  | 45 <sup>K</sup>    | (5.0)              | 5.0                | 5.2 <sup>M</sup>   | 5.2              | 5.0              | 4.8              | 47               | (4.3)              | L     |    |    |    |    |    |
| 11     |    |    |    |    |    |    | K                  | 43 <sup>K</sup>  | 44 <sup>K</sup>  | (4.3) <sup>K</sup> | 48 <sup>K</sup>    | 50 <sup>K</sup>    | 50 <sup>K</sup>    | 50 <sup>K</sup>  | 50               | 4.9              | 47               | (4.3)              | L     |    |    |    |    |    |
| 12     |    |    |    |    |    |    | L                  | (41)             | 43               | 45                 | 48                 | 48                 | 49                 | 49 <sup>f</sup>  | 48               | 47               | (4.6)            | A                  | C     |    |    |    |    |    |
| 13     |    |    |    |    |    |    | L                  | (4.6)            | 50               | (4.8)              | (5.2) <sup>M</sup> | 5.1                | 5.0                | 4.8              | A                | 4.6              | 4.7              | [4.2] <sup>A</sup> | L     |    |    |    |    |    |
| 14     |    |    |    |    |    |    | C                  | C                | 47               | (4.7)              | 48                 | 4.9 <sup>M</sup>   | 4.8                | A                | 4.8              | 4.8              | 4.7              | (4.3)              | L     |    |    |    |    |    |
| 15     |    |    |    |    |    |    | L                  | L                | (4.5)            | (4.7)              | 48                 | 4.9 <sup>M</sup>   | (5.0)              | 5.0 <sup>M</sup> | 4.8              | 4.8              | 4.7              | (4.3)              | L     |    |    |    |    |    |
| 16     |    |    |    |    |    |    | L                  | 40               | 4.3              | 47                 | 48                 | 4.8                | (4.9) <sup>M</sup> | 5.0              | 5.0              | 4.9              | C                | C                  | A     |    |    |    |    |    |
| 17     |    |    |    |    |    |    | L                  | A                | 4.5 <sup>A</sup> | 4.8                | (5.0) <sup>M</sup> | 5.6                | 5.0                | 4.8              | (4.9)            | 4.8 <sup>M</sup> | 4.6              | (4.2)              | L     |    |    |    |    |    |
| 18     |    |    |    |    |    |    | (3.5)              | 4.8              | 4.5              | 4.7                | (4.8)              | (4.9)              | 4.9                | 4.9              | C                | C                | C                | C                  | C     |    |    |    |    |    |
| 19     |    |    |    |    |    |    | C                  | C                | C                | C                  | (5.0) <sup>C</sup> | (5.0) <sup>C</sup> | 5.1 <sup>C</sup>   | 5.2              | 5.1              | 5.2              | (5.0)            | 4.5                | L     |    |    |    |    |    |
| 20     |    |    |    |    |    |    | L                  | A                | (4.8)            | 5.0 <sup>M</sup>   | 4.8                | 5.1 <sup>M</sup>   | 5.3 <sup>A</sup>   | (5.0)            | (5.0)            | 4.9              | 4.7              | 4.5 <sup>K</sup>   | L     | K  |    |    |    |    |
| 21     |    |    |    |    |    |    | (3.7) <sup>K</sup> | 40 <sup>K</sup>  | 4.7 <sup>K</sup> | 4.5 <sup>K</sup>   | 4.6 <sup>K</sup>   | 4.7 <sup>K</sup>   | 4.7 <sup>K</sup>   | 4.7 <sup>K</sup> | 4.6              | 4.6              | 4.4              | 4.2                | L     |    |    |    |    |    |
| 22     |    |    |    |    |    |    | K                  | 4.2 <sup>K</sup> | 4.5 <sup>K</sup> | 4.8 <sup>K</sup>   | 4.7 <sup>K</sup>   | (5.2) <sup>K</sup> | 5.0 <sup>K</sup>   | 4.9 <sup>C</sup> | 5.0 <sup>K</sup> | 4.8 <sup>K</sup> | 4.7              | 4.3                | 3.7   |    |    |    |    |    |
| 23     |    |    |    |    |    |    | (4.1)              | 4.6 <sup>A</sup> | (4.8)            | 5.0                | 5.0                | 5.0                | 5.1                | 5.1              | 5.0              | 5.0              | 4.6              | 4.4                | L     |    |    |    |    |    |
| 24     |    |    |    |    |    |    | (4.3)              | 4.5 <sup>K</sup> | 4.6              | 4.8 <sup>M</sup>   | 4.8                | 5.0                | A                  | A                | 5.1              | 5.2              | 4.7              | 4.5 <sup>M</sup>   | (3.3) |    |    |    |    |    |
| 25     |    |    |    |    |    |    | 3.8                | 4.4              | 4.6              | 4.8 <sup>M</sup>   | 4.9 <sup>M</sup>   | 5.1                | 5.3 <sup>M</sup>   | 5.3 <sup>M</sup> | 5.2 <sup>M</sup> | (5.2)            | (4.9)            | (4.5)              | L     |    |    |    |    |    |
| 26     |    |    |    |    |    |    | (4.0)              | 4.2              | 4.3              | 4.5 <sup>K</sup>   | 4.7                | 5.0                | 5.1                | 5.0              | 5.2              | 5.1              | 5.0              | 4.9                | 4.7   | L  |    |    |    |    |
| 27     |    |    |    |    |    |    | C                  | C                | C                | 4.9 <sup>C</sup>   | 5.1                | 5.2                | 5.2                | 5.2              | 5.1 <sup>C</sup> | 5.0 <sup>C</sup> | 5.0              | 4.6                | L     |    |    |    |    |    |
| 28     |    |    |    |    |    |    | 3.7                | 4.4              | 4.7              | 4.9 <sup>M</sup>   | C                  | C                  | C                  | C                | C                | C                | C                | C                  | C     |    |    |    |    |    |
| 29     |    |    |    |    |    |    | L                  | 4.3              | 4.6              | 4.8                | 5.0                | 5.0                | 5.2                | 5.0              | 5.0              | 4.8              | 4.8              | 4.5                | L     |    |    |    |    |    |
| 30     |    |    |    |    |    |    | 3.8                | 4.3              | 4.6              | 4.8 <sup>C</sup>   | 4.9 <sup>C</sup>   | 5.0                | 5.0                | 5.0 <sup>M</sup> | 5.0 <sup>M</sup> | (4.9)            | 4.7              | 4.2                | L     |    |    |    |    |    |
| 31     |    |    |    |    |    |    | L <sup>M</sup>     | 4.0              | A                | A                  | A                  | 4.9                | 4.9                | 5.0              | 4.8              | 4.7              | 4.8              | 4.4                | L     |    |    |    |    |    |
| Sun    |    |    |    |    |    |    | 3.7                | 4.2              | 4.5              | 4.8                | 5.0                | 5.0                | 5.1                | 5.0              | 5.0              | 4.9              | 4.7              | 4.4                | (3.7) |    |    |    |    |    |
| Median |    |    |    |    |    |    |                    |                  |                  |                    |                    |                    |                    |                  |                  |                  |                  |                    |       |    |    |    |    |    |



TABLE 74

## IONOSPHERE DATA-6

Washington, D.C. Ionosphere Station

National Bureau Of Standards

Hourly values of  $h' E_{130}$  for MAY 1946Records measured by: J.M.C.  
J.L.S.

TIME: 75° W MERIDIAN

| Day    | 00 | 01 | 02 | 03 | 04 | 05               | 06               | 07               | 08                 | 09                 | 10               | 11                 | 12                 | 13                 | 14                 | 15                 | 16                 | 17               | 18               | 19                 | 20               | 21 | 22 | 23 |
|--------|----|----|----|----|----|------------------|------------------|------------------|--------------------|--------------------|------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|------------------|------------------|--------------------|------------------|----|----|----|
| 1      |    |    |    |    |    | 120              | 110              | 110              | 110                | 110                | 110              | 110                | 100                | 100                | 110                | 110                | 110                | 110              | 110              | 120 <sup>M</sup>   |                  |    |    |    |
| 2      |    |    |    |    |    | 120              | 120              | 110              | 110                | 110                | 110              | 100                | 110                | (120)              | (120)              | 110                | [110] <sup>C</sup> | 110              | 110              | 120                | 120              |    |    |    |
| 3      |    |    |    |    |    | 120              | 120              | 110              | 110                | 110                | 110              | 110                | 110                | 110                | 110                | 110                | 110                | 110              | 110              | 120                |                  |    |    |    |
| 4      |    |    |    |    |    | 120              | 110              | 110              | 110                | 110                | 110              | 110                | 110                | [110] <sup>C</sup> | [110] <sup>C</sup> | 110                | 110                | 110              | 110              | 120                | 120              |    |    |    |
| 5      |    |    |    |    |    |                  | 110              | 110              | 110                | 110                | 110              | 110                | 110                | 110                | 110                | 110                | 110                | 110              | 110              | 110                |                  |    |    |    |
| 6      |    |    |    |    |    | K                | 110 <sup>K</sup> | 110 <sup>K</sup> | 110 <sup>K</sup>   | 110 <sup>K</sup>   | 110 <sup>K</sup> | 110 <sup>K</sup>   | 110 <sup>K</sup>   | 110 <sup>K</sup>   | 110 <sup>K</sup>   | 110 <sup>K</sup>   | 110 <sup>K</sup>   | 110 <sup>K</sup> | 120 <sup>K</sup> | 120 <sup>K</sup>   | K                |    |    |    |
| 7      |    |    |    |    |    | K                | 110 <sup>K</sup> | 110 <sup>K</sup> | 110 <sup>K</sup>   | 110 <sup>K</sup>   | 110 <sup>K</sup> | 100 <sup>K</sup>   | 110 <sup>K</sup>   | 110 <sup>K</sup>   | [110] <sup>K</sup> | [110] <sup>K</sup> | 110 <sup>K</sup>   | 110 <sup>K</sup> | 110 <sup>K</sup> | [30] <sup>K</sup>  | K                |    |    |    |
| 8      |    |    |    |    |    | K                | 120 <sup>K</sup> | 110 <sup>K</sup> | [110] <sup>K</sup> | (110) <sup>K</sup> | 110 <sup>K</sup> | [110] <sup>K</sup> | 110 <sup>K</sup>   | 110 <sup>K</sup>   | 100 <sup>K</sup>   | 110 <sup>K</sup>   | 110 <sup>K</sup>   | 110 <sup>K</sup> | 120 <sup>K</sup> | 120 <sup>K</sup>   | K                |    |    |    |
| 9      |    |    |    |    |    | 120 <sup>K</sup> | 110 <sup>K</sup> | 110 <sup>K</sup> | 110 <sup>K</sup>   | 110 <sup>K</sup>   | 110 <sup>K</sup> | 110 <sup>K</sup>   | 100 <sup>K</sup>   | 100 <sup>K</sup>   | 110 <sup>K</sup>   | 110 <sup>K</sup>   | 110 <sup>K</sup>   | 110 <sup>K</sup> | 120 <sup>K</sup> | 120 <sup>K</sup>   | K                |    |    |    |
| 10     |    |    |    |    |    | 120 <sup>K</sup> | 110 <sup>K</sup> | 110 <sup>K</sup> | 100 <sup>K</sup>   | 110                | 110              | 110                | 100                | 100                | 110                | 110                | 110                | 110              | 120              |                    |                  |    |    |    |
| 11     |    |    |    |    |    | K                | 110 <sup>K</sup> | 110 <sup>K</sup> | 100 <sup>K</sup>   | 100 <sup>K</sup>   | 100 <sup>K</sup> | 100 <sup>K</sup>   | 110 <sup>K</sup>   | 110 <sup>K</sup>   | 110                | 100                | 110                | 110              | 120              | 120                |                  |    |    |    |
| 12     |    |    |    |    |    | 120              | 120              | 110              | 110                | 110                | 110              | 100                | 100                | 100                | 110                | 100                | 110                | 110              | 110              | [110] <sup>C</sup> | 110              |    |    |    |
| 13     |    |    |    |    |    | 110 <sup>M</sup> | 110 <sup>M</sup> | 110 <sup>M</sup> | 110                | 110                | 100              | 100                | 110                | 110                | 110                | 110                | 110                | 110              | C                | C                  |                  |    |    |    |
| 14     |    |    |    |    |    |                  | C                | C                | C                  | 110                | 110              | 110                | 110                | 110                | 110                | 110                | 110                | 110              | 110              | 120                | 110              |    |    |    |
| 15     |    |    |    |    |    | 110              | 110              | 110              | 110                | 110                | 110              | 100                | 100                | 100                | 110                | 110                | 110                | 110              | 110              | 110                |                  |    |    |    |
| 16     |    |    |    |    |    | 120              | 110              | 110              | 100                | 100                | 100              | 100                | 100                | 100                | 100                | 110                | C                  | C                | 110              |                    |                  |    |    |    |
| 17     |    |    |    |    |    | (120)            | 110 <sup>M</sup> | 110              | 110                | 110                | 110              | 110                | 110                | 110                | 110                | 110                | 110                | 110              | 110 <sup>M</sup> | 120                |                  |    |    |    |
| 18     |    |    |    |    |    | 120              | 120              | 110              | 110                | 110                | 110              | 110                | 110                | 110                | (110)              | C                  | C                  | C                | C                |                    |                  |    |    |    |
| 19     |    |    |    |    |    |                  | C                | C                | C                  | C                  | C                | [110] <sup>K</sup> | [110] <sup>K</sup> | 110                | 110                | 110                | 110                | 110              | 110              |                    |                  |    |    |    |
| 20     |    | C  | K  | K  | K  | 110              | 110              | 100              | 110                | 110                | 110              | 110                | 100                | 100                | 100                | 100                | 110                | 110              | 110 <sup>K</sup> | (130) <sup>K</sup> | K                |    |    |    |
| 21     |    |    |    |    |    | 130 <sup>K</sup> | 120 <sup>M</sup> | 110 <sup>K</sup> | 110 <sup>K</sup>   | 100 <sup>K</sup>   | 110 <sup>K</sup> | 110 <sup>K</sup>   | 100 <sup>K</sup>   | 110                | 110                | 110                | 110                | 110              | 120              |                    |                  |    |    |    |
| 22     |    |    |    |    |    | 120 <sup>K</sup> | 110 <sup>K</sup> | 110 <sup>K</sup> | 110 <sup>K</sup>   | 110 <sup>K</sup>   | 110 <sup>K</sup> | 110 <sup>K</sup>   | 110 <sup>K</sup>   | 110 <sup>K</sup>   | 110 <sup>K</sup>   | 110 <sup>K</sup>   | 110                | 110              | 120              |                    |                  |    |    |    |
| 23     |    |    |    |    |    | 120              | 120              | 110              | 110                | 110                | 110              | 110                | 110                | 110                | 110                | 110                | 110                | 110              | 110              | 110                | 120 <sup>M</sup> |    |    |    |
| 24     |    |    |    |    |    | (130)            | 110              | 110              | 110                | 110                | 110              | 110                | 110                | 110                | 110                | 110                | 110                | 110              | 110              | 110                |                  |    |    |    |
| 25     |    |    |    |    |    | 120              | 120              | 110              | 110                | 110                | 110              | 110                | 110                | 110                | 110                | 110                | 110                | 110              | 110              | 120                |                  |    |    |    |
| 26     |    |    |    |    |    | 120              | 110              | 120              | 110                | 110                | 110              | 100                | 110                | 110                | 110                | 110                | 110                | 110 <sup>M</sup> | 110              | 110                | 110              |    |    |    |
| 27     |    |    |    |    |    | C                | C                | C                | C                  | [110] <sup>K</sup> | 110              | 100                | 100                | 100                | 110                | 110                | 110                | 110              | 110              |                    |                  |    |    |    |
| 28     |    |    |    |    |    | (120)            | 110 <sup>M</sup> | 110              | 110                | 110 <sup>M</sup>   | 100              | 110                | 110                | 100                | 110                | C                  | C                  | C                | C                |                    |                  |    |    |    |
| 29     |    |    |    |    |    | (30)             | 110              | 110              | 110                | 110                | 110              | 110                | 110                | 100                | 110                | 110                | 110                | 110              | 110              | 120                |                  |    |    |    |
| 30     |    |    |    |    |    | 120              | 110              | 110              | 110                | [110] <sup>K</sup> | 110              | 110                | 110                | 110                | 110                | 110                | 110                | 110              | 110              | (120)              |                  |    |    |    |
| 31     |    |    |    |    |    | 110              | 110              | 110              | 110                | 110                | 110              | 100                | 100                | 110                | 110                | 110                | 110                | 110              | 110              | 120                |                  |    |    |    |
| Sum    |    |    |    |    |    |                  |                  |                  |                    |                    |                  |                    |                    |                    |                    |                    |                    |                  |                  |                    |                  |    |    |    |
| Median |    |    |    |    |    | 120              | 110              | 110              | 110                | 110                | 110              | 110                | 110                | 110                | 110                | 110                | 110                | 110              | 115              | 120                |                  |    |    |    |

TABLE 75

**Ionosphere Station**

Washington, D.C.

(Location)

## National Bureau Of Standards

(Institution)

Hourly values of  $\frac{f_0}{E}$  in  $\frac{\text{ft}}{\text{in}}$

MAY (Month)

6/19/61

Records measured by: J.M.C.  
J.L.S.

TIME: 75°W MERIDIAN

| Day    | 00 | 01 | 02 | 03 | 04 | 05     | 06     | 07     | 08     | 09     | 10     | 11     | 12     | 13     | 14     | 15     | 16     | 17     | 18     | 19     | 20  | 21 | 22 | 23 |
|--------|----|----|----|----|----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-----|----|----|----|
| 1      |    |    |    |    |    | (2.1)  | 2.8    | A      | A      | A      | A      | 3.8    | [3.9]A | (3.9)  | (3.1)  | (3.5)  | (3.5)  | 3.0    | 2.3H   |        |     |    |    |    |
| 2      |    |    |    |    |    | 2.1    | 2.9    | [3.2]A | (3.2)  | A      | A      | B      | (3.8)  | C      | C      | (3.7)  | [3.3]C | (3.0)  | 2.2    | A      |     |    |    |    |
| 3      |    |    |    |    |    | A      | 2.9    | A      | A      | A      | A      | A      | A      | A      | [3.7]A | 3.6    | [3.4]C | [3.0]C | A      |        |     |    |    |    |
| 4      |    |    |    |    |    | (2.2)  | 2.8    | (3.2)  | 3.5    | [3.7]B | (3.8)  | (3.8)  | (3.8)  | C      | C      | C      | 3.4    | 3.0    | (2.3)  | A      |     |    |    |    |
| 5      |    |    |    |    |    | A      | 2.7    | (3.0)  | (3.6)  | B      | (3.8)  | 3.8    | [3.7]A | (3.7)  | (3.7)  | 3.5    | [3.2]C | 2.4    | 2.3    |        |     |    |    |    |
| 6      |    |    |    |    |    | K      | 2.2K   | (2.7)K | C      | C      | B      | K      | (3.7)K | (3.8)K | 3.7K   | 3.5K   | 3.3K   | 2.9K   | 2.5K   | A      | K   |    |    |    |
| 7      |    |    |    |    |    | K      | 2.2K   | (2.8)K | (3.0)K | A      | K      | A      | (3.8)K | (3.8)K | C      | C      | (3.2)K | 2.9K   | (2.5)K | [1.8]C |     |    |    |    |
| 8      |    |    |    |    |    | K      | (2.2)K | C      | C      | A      | A      | C      | C      | C      | [3.6]K | [3.4]C | [3.1]C | 2.8K   | 2.2K   | A      | K   |    |    |    |
| 9      |    |    |    |    |    | (1.7)K | 2.4K   | 2.7K   | (3.1)K | C      | A      | A      | C      | C      | C      | C      | 3.0K   | 2.7K   | 2.2K   | (1.8)K | A   |    |    |    |
| 10     |    |    |    |    |    | 1.7K   | (2.3)K | (2.6)K | [2.2]K | [3.4]C | [3.6]A | (3.7)  | (3.8)  | 3.7    | 3.5    | [3.5]C | (3.2)  | [2.7]A | A      |        |     |    |    |    |
| 11     |    |    |    |    |    | K      | (2.9)K | 2.7K   | (3.1)K | A      | A      | B      | (3.9)K | [3.8]C | (3.7)  | [3.6]A | (3.3)  | 2.8    | 2.3    | A      |     |    |    |    |
| 12     |    |    |    |    |    | (1.5)  | 2.1    | (2.6)  | A      | A      | A      | (3.8)  | [3.8]A | [3.7]C | (3.5)  | (3.1)  | 2.7    | C      | C      | A      |     |    |    |    |
| 13     |    |    |    |    |    | 2.2H   | 2.7H   | (3.0)  | [3.2]A | [3.4]B | [3.7]C | [3.8]A | (3.6)  | 3.6    | 3.4    | (3.1)  | 2.7    | C      | C      |        |     |    |    |    |
| 14     |    |    |    |    |    | C      | C      | C      | (3.2)  | (3.2)  | (3.3)  | A      | A      | A      | A      | (3.4)  | 3.2    | 2.6    | [2.7]A | A      |     |    |    |    |
| 15     |    |    |    |    |    | [2.3]A | (2.9)  | A      | A      | A      | A      | (3.7)  | [3.7]A | (3.6)  | (3.5)  | C      | C      | 2.8    | (2.2)  |        |     |    |    |    |
| 16     |    |    |    |    |    | (2.3)  | 2.7    | [3.0]C | B      | 4      | A      | (3.7)  | [3.7]A | (3.6)  | (3.5)  | C      | C      | 2.3    |        |        |     |    |    |    |
| 17     |    |    |    |    |    | (1.7)  | 2.2H   | 2.6    | 2.8    | (3.1)  | A      | B      | (3.8)  | [3.7]A | 3.6    | [3.3]A | [3.1]A | 2.7H   | (2.4)  |        |     |    |    |    |
| 18     |    |    |    |    |    | (2.2)  | 2.7    | [3.0]C | (3.2)  | C      | C      | A      | B      | (3.6)  | C      | C      | C      | C      | C      |        |     |    |    |    |
| 19     |    |    |    |    |    | C      | C      | C      | C      | C      | C      | C      | C      | (3.7)  | 3.6    | (3.5)  | 3.3    | (2.8)  | 2.3    |        |     |    |    |    |
| 20     |    |    |    |    |    | 2.2    | 2.8    | 3.1    | (3.4)  | (3.4)  | (3.7)  | 3.7    | (3.7)  | (3.7)  | (3.7)  | 3.6    | 3.3    | (2.9)K | 2.3K   | 1.8K   | K   | K  | K  |    |
| 21     |    |    |    |    |    | 1.6K   | 2.2H   | 2.7K   | (3.0)K | C      | A      | (3.8)K | (3.7)K | [3.7]C | 3.8    | [3.5]C | (3.4)  | 2.7    | 2.4    |        |     |    |    |    |
| 22     |    |    |    |    |    | A      | 2.3K   | (2.6)H | (3.0)K | C      | C      | C      | C      | C      | 3.8K   | (3.5)K | [3.2]C | 2.8    | 2.5    |        |     |    |    |    |
| 23     |    |    |    |    |    | 1.7    | (2.3)  | (2.7)  | (2.9)  | [3.3]A | (3.7)  | [3.8]A | (3.8)  | 3.7    | (3.7)  | (3.5)  | (3.0)  | 2.8    | 2.3    | (1.5)H |     |    |    |    |
| 24     |    |    |    |    |    | C      | 2.3    | 2.7    | [2.9]A | [3.0]A | A      | A      | A      | A      | C      | A      | (3.6)  | (3.1)  | 2.4    |        |     |    |    |    |
| 25     |    |    |    |    |    | (1.7)  | 2.3    | [2.8]C | (3.3)  | [3.6]A | (3.8)  | (3.8)  | (3.8)  | (3.7)  | [3.6]C | (3.7)  | (3.2)  | (3.9)  | 2.4    | A      |     |    |    |    |
| 26     |    |    |    |    |    | (1.9)  | A      | C      | (2.5)  | (3.2)  | [3.4]B | (3.7)  | C      | C      | (3.1)  | (3.8)  | [3.7]C | (3.5)H | [3.7]C | 2.8    | 1.9 |    |    |    |
| 27     |    |    |    |    |    | C      | C      | C      | C      | A      | (4.0)  | [2.9]C | C      | C      | C      | C      | C      | C      | C      |        |     |    |    |    |
| 28     |    |    |    |    |    | (1.7)  | 2.2H   | 2.9    | 3.3    | 3.5H   | C      | C      | C      | C      | C      | C      | C      | C      | C      |        |     |    |    |    |
| 29     |    |    |    |    |    | 1.7    | (2.3)  | (2.8)  | C      | C      | (3.7)  | (3.8)  | [2.8]A | [3.8]A | (3.7)  | 3.6    | 3.4    | (2.9)  | 2.4    | A      |     |    |    |    |
| 30     |    |    |    |    |    | (1.6)  | (2.3)  | (2.7)  | [2.8]A | C      | C      | 3.7    | C      | A      | (3.6)  | (3.5)  | [3.3]C | (2.9)  | (2.5)  | (1.6)  |     |    |    |    |
| 31     |    |    |    |    |    | 2.3    | (2.7)  | (3.1)  | (3.2)  | (3.3)  | A      | A      | A      | A      | A      | 3.6    | [3.3]A | 2.8    | 2.3    | A      |     |    |    |    |
| Sum    |    |    |    |    |    |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |     |    |    |    |
| Median |    |    |    |    |    |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |     |    |    |    |



# TABLE 76 IONOSPHERE DATA - 8

Washington, D.C.  
Ionosphere Station  
National Bureau of Standards  
(Institution)

Hourly values of  $E_s$  in  $\mu\text{V/m}$  for MAY 1946  
Records measured by: J.M.C.  
J.L.S.

TIME: 75° W MERIDIAN

| Day    | 00     | 01     | 02     | 03     | 04     | 05     | 06     | 07     | 08     | 09     | 10      | 11     | 12     | 13     | 14     | 15     | 16     | 17     | 18     | 19     | 20     | 21     | 22     | 23     |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1      | 2.5/10 | 2.6/10 |        |        |        | 2.2    | 4.4/10 | 3.8/10 | 5.2/10 | 3.7/10 | 3.9/10  | 5.3/10 | 4.8/10 | 4.0/10 | 3.8/10 | 3.8/10 | 3.5/10 | 3.8/10 | 2.6/10 | 1.7/10 |        |        |        | 1.7/10 |
| 2      | 2.8/10 | 5.1/10 | 4.3/10 | 3.8/10 |        | 2.2    | 5.3/10 | 3.6/10 | 3.8/10 | 3.9/10 | 3.9/10  | 4.8/10 | 4.8/10 |        |        | 3.9/10 | 3.9/10 | 2.9/10 | 2.6/10 | 1.7/10 | 5.1/10 | 4.2/10 |        | 2.9/10 |
| 3      | 2.9/10 |        |        |        | 2.2/10 | 2.8/10 | 2.9/10 | 5.3/10 | 5.2/10 | 3.8/10 | 5.3/10  | 6.5/10 | 3.9/10 | 3.9/10 | 5.0/10 |        |        | 2.9/10 | 3.7/10 | 2.9/10 |        |        | 2.7/10 |        |
| 4      |        | 3.2/10 | 1.1/10 | 1.1/10 | 2.7/10 | 2.3/10 | 2.7/10 | 3.1/10 | 3.7/10 | 4.8/10 | 5.2/10  | 4.5/10 | 5.3/10 | 4.3/10 | 5.3/10 |        |        | 4.9/10 | 4.2/10 | 2.7/10 | 3.7/10 | 2.9/10 | 2.9/10 | 3.6/10 |
| 5      | 3.7/10 | 2.9/10 | 2.9/10 | 4.5/10 | 5.3/10 | 5.3/10 | 5.3/10 | 5.0/10 | 5.3/10 | 5.3/10 | 5.1/10  | 5.3/10 | 6.5/10 | 4.0/10 | 4.0/10 | 5.0/10 |        | 4.1/10 | 5.4/10 | 2.7/10 | 1.7/10 | 2.9/10 |        |        |
| 6      |        |        |        |        | 3.8/10 | 3.8/10 | 3.8/10 | 3.8/10 | 3.8/10 | 5.0/10 | 5.0/10  |        | 4.0/10 | 4.0/10 | 4.2/10 | 5.3/10 |        | 3.6/10 | 1.9/10 |        |        |        |        |        |
| 7      |        |        |        |        |        | 5.3/10 | 5.3/10 | 5.3/10 | 5.2/10 | 3.8/10 | 3.9/10  | 3.9/10 | 3.9/10 |        |        |        |        | 2.8/10 |        |        |        |        |        |        |
| 8      | 2.3/10 | 2.4/10 |        |        |        | 2.5/10 | 3.0/10 | 3.8/10 | 3.8/10 | 3.6/10 | 3.9/10  | 3.9/10 | 3.9/10 | 3.9/10 |        |        | 3.6/10 | 3.0/10 | 2.7/10 | 2.5/10 | 2.7/10 | 2.7/10 | 2.3/10 | 2.3/10 |
| 9      | 3.7/10 | 2.9/10 |        |        |        | 1.7/10 | 3.0/10 | 3.8/10 | 3.8/10 | 3.8/10 | 3.9/10  | 4.0/10 | 3.9/10 | 4.0/10 |        |        | 3.7/10 | 5.3/10 | 4.3/10 | 2.4/10 |        | 2.8/10 |        |        |
| 10     |        |        |        |        | 2.0/10 | 2.1/10 | 2.4/10 | 4.5/10 | 3.8/10 | 3.8/10 | 3.9/10  | 3.8/10 | 3.9/10 | 4.0/10 | 3.8/10 |        |        | 4.4/10 | 4.5/10 | 3.6/10 | 2.8/10 | 2.9/10 | 3.5/10 | 2.3/10 |
| 11     |        |        |        |        |        |        |        |        |        |        |         |        |        |        |        |        |        | 3.7/10 | 3.7/10 | 3.6/10 | 5.3/10 | 5.0/10 | 5.0/10 | 5.0/10 |
| 12     |        |        |        |        | 1.5/10 | 3.0/10 | 3.4/10 | 3.8/10 | 3.4/10 | 4.0/10 | 3.9/10  | 3.8/10 | 5.3/10 | 5.0/10 | 5.0/10 | 5.0/10 |        | 5.2/10 | 5.3/10 | 5.3/10 | 5.3/10 | 5.3/10 | 5.3/10 | 5.3/10 |
| 13     |        |        |        |        | 2.4/10 | 2.2/10 |        | 3.1/10 | 3.4/10 | 3.8/10 | 4.0/10  | 5.3/10 | 5.3/10 | 5.3/10 | 5.3/10 | 5.3/10 |        | 5.2/10 | 5.3/10 | 5.3/10 | 5.3/10 | 5.3/10 | 5.3/10 | 5.3/10 |
| 14     |        |        |        |        |        |        |        |        |        |        |         |        |        |        |        |        |        | 3.7/10 | 3.7/10 | 3.6/10 | 5.3/10 | 5.3/10 | 5.3/10 | 5.3/10 |
| 15     | 5.0/10 | 5.0/10 | 5.0/10 | 4.0/10 | 4.0/10 | 5.3/10 | 2.9/10 | 3.9/10 | 5.0/10 | 5.4/10 | 5.4/10  | 5.6/10 | 5.7/10 | 5.7/10 | 5.7/10 | 5.7/10 |        | 5.2/10 | 5.3/10 | 5.3/10 | 5.3/10 | 5.3/10 | 5.3/10 | 5.3/10 |
| 16     |        | 2.4/10 | 2.4/10 | 2.8/10 |        | 2.3/10 | 2.7/10 | 2.9/10 | 3.5/10 | 3.8/10 | 3.8/10  | 5.2/10 | 4.0/10 | 4.0/10 | 5.2/10 | 5.2/10 |        | 3.7/10 | 3.7/10 | 3.7/10 | 3.7/10 | 3.7/10 | 3.7/10 | 3.7/10 |
| 17     |        |        |        |        | 4.0/10 | 3.3/10 | 4.3/10 | 6.0/10 | 6.0/10 | 5.3/10 | 5.3/10  | 5.3/10 | 4.0/10 | 4.0/10 | 5.2/10 | 5.2/10 |        | 3.7/10 | 3.7/10 | 3.7/10 | 3.7/10 | 3.7/10 | 3.7/10 | 3.7/10 |
| 18     |        |        |        |        | 2.9/10 |        | 2.9/10 | 5.2/10 | 3.2/10 | 3.7/10 | 3.8/10  | 4.0/10 | 4.0/10 | 4.0/10 | 4.0/10 | 4.0/10 |        | 3.7/10 | 3.7/10 | 3.7/10 | 3.7/10 | 3.7/10 | 3.7/10 | 3.7/10 |
| 19     |        |        |        |        | 5.3/10 | 5.2/10 | 4.7/10 | 6.0/10 | 4.9/10 | 3.9/10 | 3.9/10  | 5.3/10 | 4.4/10 | 4.4/10 | 4.4/10 | 4.4/10 |        | 3.7/10 | 3.7/10 | 3.7/10 | 3.7/10 | 3.7/10 | 3.7/10 | 3.7/10 |
| 20     | 5.3/10 | 5.4/10 | 5.3/10 | 5.3/10 | 5.3/10 | 5.3/10 | 5.3/10 | 5.3/10 | 5.3/10 | 5.3/10 | 5.3/10  | 5.3/10 | 5.3/10 | 5.3/10 | 5.3/10 | 5.3/10 |        | 3.7/10 | 3.7/10 | 3.7/10 | 3.7/10 | 3.7/10 | 3.7/10 | 3.7/10 |
| 21     |        |        |        |        |        | 1.3/10 |        | 5.2/10 | 5.2/10 | 5.2/10 | 5.2/10  | 5.2/10 | 5.2/10 | 5.2/10 | 5.2/10 | 5.2/10 |        | 3.7/10 | 3.7/10 | 3.7/10 | 3.7/10 | 3.7/10 | 3.7/10 | 3.7/10 |
| 22     |        |        |        |        |        | 1.8/10 | 3.6/10 | 3.2/10 | 5.2/10 | 3.6/10 | 3.8/10  | 3.9/10 | 3.9/10 | 3.9/10 | 3.9/10 | 3.9/10 |        | 3.7/10 | 3.7/10 | 3.7/10 | 3.7/10 | 3.7/10 | 3.7/10 | 3.7/10 |
| 23     |        |        |        |        | 2.2/10 | 2.3/10 | 4.0/10 | 5.2/10 | 8.4/10 | 6.6/10 | 5.9/10  | 4.9/10 | 3.1/10 | 3.1/10 | 3.1/10 | 3.1/10 |        | 3.7/10 | 3.7/10 | 3.7/10 | 3.7/10 | 3.7/10 | 3.7/10 | 3.7/10 |
| 24     | 3.5/10 | 4.4/10 |        |        |        |        | 5.0/10 | 6.6/10 | 8.6/10 | 5.2/10 | 5.4/10  | 4.4/10 | 3.1/10 | 3.1/10 | 3.1/10 | 3.1/10 |        | 3.7/10 | 3.7/10 | 3.7/10 | 3.7/10 | 3.7/10 | 3.7/10 | 3.7/10 |
| 25     |        |        |        |        |        |        |        | 4.1/10 | 4.1/10 | 4.1/10 | 4.1/10  | 5.3/10 | 3.1/10 | 3.1/10 | 3.1/10 | 3.1/10 |        | 3.7/10 | 3.7/10 | 3.7/10 | 3.7/10 | 3.7/10 | 3.7/10 | 3.7/10 |
| 26     |        |        |        |        |        |        | 2.6/10 |        | 3.3/10 | 3.3/10 | 4.2/10  |        |        |        |        |        |        | 3.7/10 | 3.7/10 | 3.7/10 | 3.7/10 | 3.7/10 | 3.7/10 | 3.7/10 |
| 27     | 1.2/10 | 1.2/10 | 1.2/10 | 2.3/10 |        |        |        | 4.2/10 | 4.2/10 | 3.9/10 | 4.0/10  |        |        |        |        |        |        | 4.0/10 | 4.0/10 | 4.0/10 | 4.0/10 | 4.0/10 | 4.0/10 | 4.0/10 |
| 28     |        |        |        |        |        |        |        | 2.9/10 | 3.8/10 | 5.2/10 | 4.0/10  |        |        |        |        |        |        | 3.7/10 | 3.7/10 | 3.7/10 | 3.7/10 | 3.7/10 | 3.7/10 | 3.7/10 |
| 29     |        |        |        |        |        |        |        | 2.4/10 | 2.8/10 | 4.0/10 | 4.0/10  | 3.9/10 | 4.1/10 | 4.0/10 | 4.0/10 | 4.0/10 |        | 3.7/10 | 3.7/10 | 3.7/10 | 3.7/10 | 3.7/10 | 3.7/10 | 3.7/10 |
| 30     | 2.4/10 | 2.4/10 |        |        |        |        |        | 3.0/10 | 3.0/10 | 3.0/10 | 3.0/10  | 3.0/10 | 3.0/10 | 3.0/10 | 3.0/10 | 3.0/10 |        | 3.7/10 | 3.7/10 | 3.7/10 | 3.7/10 | 3.7/10 | 3.7/10 | 3.7/10 |
| 31     |        |        |        |        |        |        |        | 2.4/10 | 3.4/10 | 5.8/10 | 10.0/10 | 9.4/10 | 8.8/10 | 8.8/10 | 8.8/10 | 8.8/10 |        | 3.7/10 | 3.7/10 | 3.7/10 | 3.7/10 | 3.7/10 | 3.7/10 | 3.7/10 |
| Sum    |        |        |        |        |        |        |        |        |        |        |         |        |        |        |        |        |        |        |        |        |        |        |        |        |
| Median |        |        |        |        |        |        |        |        |        |        |         |        |        |        |        |        |        |        |        |        |        |        |        |        |

\*\* Median  $fE_s$  less than median  $f^oF_2$ , or less than lower frequency limit of recorder.



Records measured by: J.M.C.  
J.L.S.

[illegible]

# TABLE 78

## IONOSPHERE DATA-10

Washington, D. C.

Ionosphere Station

National Bureau of Standards

(Institution)

Hourly values of F2-M3000 for MAY 1946

Records measured by: J. M. C. J. L. S.

TIME: 75°W MERIDIAN

| Day    | -00                | 01                 | 02                 | 03                 | 04                 | 05                 | 06                 | 07                 | 08                 | 09                 | 10                 | 11                 | 12                 | 13                 | 14                 | 15               | 16               | 17               | 18                 | 19                 | 20                 | 21                 | 22                 | 23                 |
|--------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|------------------|------------------|------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| 1      | 2.7                | (2.8) <sup>F</sup> | 2.8 <sup>F</sup>   | 2.8                | 2.8                | 3.0                | 3.0                | (2.8) <sup>H</sup> | 3.1                | (2.8)              | 2.8                | 2.8                | 3.0                | 2.8                | 2.7                | 2.8              | 2.8              | 2.9              | 3.0                | (2.9)              | (2.9)              | (2.8)              | 2.7                | 2.7                |
| 2      | (2.8) <sup>J</sup> | 2.7                | 2.7                | 2.6                | 2.7                | 2.9                | 3.1                | 3.2                | 3.2                | 3.0                | 2.9                | 2.8                | 2.8                | 2.9                | 2.9                | 2.8              | C                | 2.9              | 3.0                | 3.0                | (2.9)              | (2.8)              | (2.8)              | 2.7                |
| 3      | 2.8                | 2.7                | 2.8                | 2.7                | 2.8                | 2.8                | 2.9                | 3.0                | 2.9                | 2.9                | 2.7                | 2.8                | 2.8                | 2.7                | 2.8                | 2.7              | 2.8              | 2.8              | 2.8                | 2.9                | (2.8)              | (2.8)              | (2.8) <sup>H</sup> | 2.8                |
| 4      | 2.6                | 2.6                | 2.7                | 2.9 <sup>J</sup>   | 2.7                | 2.8                | 2.8                | (2.7) <sup>H</sup> | 2.5                | 2.6                | (2.3)              | (2.5)              | 2.3                | C                  | C                  | C                | 2.7              | 2.8              | 2.8                | 2.9                | (2.9)              | 2.8                | 2.6                | 2.7                |
| 5      | 2.7                | 2.8                | (2.8) <sup>F</sup> | (2.9)              | 2.8 <sup>F</sup>   | 3.0 <sup>F</sup>   | 3.2                | 3.1                | 3.0                | 2.9                | 2.9                | 2.8                | 2.8                | 2.8                | 2.8                | 2.8              | 2.8              | 2.8              | 2.9                | 2.9                | C                  | (2.8)              | 2.8                | 2.6                |
| 6      | (2.7) <sup>K</sup> | 2.7 <sup>K</sup>   | (2.5) <sup>K</sup> | (2.7) <sup>K</sup> | 2.3 <sup>K</sup>   | 2.7 <sup>K</sup>   | 2.5 <sup>K</sup>   | 2.3 <sup>K</sup>   | G <sup>K</sup>     | 2.3 <sup>K</sup>   | (2.1) <sup>K</sup> | (2.0) <sup>K</sup> | 2.4 <sup>K</sup>   | (2.5) <sup>K</sup> | (2.8) <sup>K</sup> | 2.6 <sup>K</sup> | 2.7 <sup>K</sup> | 2.8 <sup>K</sup> | 2.9 <sup>K</sup>   | 2.9 <sup>K</sup>   | 2.7 <sup>K</sup>   | 2.7 <sup>K</sup>   | 2.6 <sup>K</sup>   | 2.7 <sup>K</sup>   |
| 7      | (2.9) <sup>K</sup> | (2.6) <sup>K</sup> | (2.5) <sup>K</sup> | (2.5) <sup>K</sup> | (2.2) <sup>K</sup> | (2.7) <sup>K</sup> | G <sup>K</sup>     | G <sup>K</sup>     | G <sup>K</sup>     | G <sup>K</sup>     | G <sup>K</sup>     | G <sup>K</sup>     | (2.1) <sup>K</sup> | (2.0) <sup>K</sup> | C <sup>K</sup>     | C <sup>K</sup>   | 2.6 <sup>K</sup> | 2.6 <sup>K</sup> | (2.9) <sup>K</sup> | (3.1) <sup>K</sup> | C <sup>K</sup>     | (2.6) <sup>K</sup> | (3.0) <sup>K</sup> |                    |
| 8      | (2.6) <sup>K</sup> | (3.0) <sup>K</sup> | (2.9) <sup>K</sup> | (2.5) <sup>K</sup> | (2.8) <sup>K</sup> | (2.8) <sup>K</sup> | 3.1 <sup>K</sup>   | G <sup>K</sup>     | G <sup>K</sup>     | G <sup>K</sup>     | G <sup>K</sup>     | C <sup>K</sup>     | G <sup>K</sup>     | G <sup>K</sup>     | (2.2) <sup>K</sup> | 2.4 <sup>K</sup> | 2.5 <sup>K</sup> | 2.6 <sup>K</sup> | 2.7 <sup>K</sup>   | 2.9 <sup>K</sup>   | 2.8 <sup>K</sup>   | 2.7 <sup>K</sup>   | 2.8 <sup>K</sup>   |                    |
| 9      | (2.7) <sup>K</sup> | (2.6) <sup>K</sup> | (2.6) <sup>K</sup> | (2.8) <sup>K</sup> | (2.6) <sup>K</sup> | 3.0 <sup>K</sup>   | 3.0 <sup>K</sup>   | 2.5 <sup>K</sup>   | 2.5 <sup>K</sup>   | G <sup>K</sup>     | (2.1) <sup>K</sup> | G <sup>K</sup>     | G <sup>K</sup>     | G <sup>K</sup>     | (2.1) <sup>K</sup> | 2.3 <sup>K</sup> | 2.5 <sup>K</sup> | 2.6 <sup>K</sup> | 2.9 <sup>K</sup>   | 2.9 <sup>K</sup>   | (2.9) <sup>K</sup> | 2.8 <sup>K</sup>   | 2.7 <sup>K</sup>   |                    |
| 10     | (2.9) <sup>K</sup> | (2.7) <sup>K</sup> | (2.5) <sup>K</sup> | (2.7) <sup>K</sup> | (2.9) <sup>K</sup> | 2.9 <sup>K</sup>   | (3.0) <sup>K</sup> | G <sup>K</sup>     | (2.4) <sup>K</sup> | 2.6                | (2.8)              | (3.1)              | 2.8                | 2.8                | 2.9                | 3.0              | 2.9              | 3.0              | 3.0                | 3.1                | 2.7                | (2.8)              | (2.7)              | 2.6                |
| 11     | 2.7                | 2.7 <sup>K</sup>   | (2.6) <sup>K</sup> | (2.9) <sup>K</sup> | (2.6) <sup>K</sup> | (2.6) <sup>K</sup> | 2.7 <sup>K</sup>   | 3.0 <sup>K</sup>   | 3.4 <sup>K</sup>   | (3.3) <sup>K</sup> | (3.1) <sup>K</sup> | (2.5) <sup>K</sup> | 2.6 <sup>K</sup>   | (2.5) <sup>K</sup> | 2.7                | 2.7              | 2.9              | 2.9              | 3.0                | 2.9                | 2.7                | (2.8)              | (2.8)              | 2.8                |
| 12     | (2.8) <sup>F</sup> | (2.8) <sup>F</sup> | (2.8) <sup>F</sup> | (3.0) <sup>F</sup> | (2.9) <sup>F</sup> | 2.9 <sup>F</sup>   | 2.9                | (2.3) <sup>F</sup> | 2.8                | 2.3                | (2.3) <sup>F</sup> | (2.7)              | (2.4)              | C                  | (2.7)              | 2.9              | 2.8              | A                | C                  | 3.0                | 2.8                | 2.7                | (2.8)              | 2.8                |
| 13     | 2.7                | 2.9                | (2.8) <sup>F</sup> | 2.9 <sup>F</sup>   | (2.9) <sup>F</sup> | (3.0) <sup>F</sup> | 3.1 <sup>F</sup>   | 3.2                | 3.1                | 3.0                | 2.8                | 2.9                | 3.0                | 2.8                | 2.8                | 2.9              | 3.0              | C                | C                  | C                  | C                  | C                  | C                  | C                  |
| 14     | C                  | C                  | C                  | C                  | C                  | C                  | C                  | C                  | C                  | (2.7)              | 2.7                | 2.7                | 2.9                | A                  | A                  | 2.8              | 2.8              | 2.9              | 3.1                | (3.1)              | 3.0                | (3.1)              | A                  | 2.8                |
| 15     | 2.7                | A                  | 3.0 <sup>F</sup>   | 3.0 <sup>F</sup>   | 2.9 <sup>F</sup>   | (3.1) <sup>F</sup> | 3.2                | (3.1)              | 3.1                | (2.9)              | 3.0                | 2.8                | 2.9                | 3.0                | 2.9                | (2.9)            | 2.8              | 2.9              | 3.0                | 2.9                | (3.1)              | 3.0                | 2.9                | 2.9                |
| 16     | 2.8                | 2.7                | 2.7                | 2.9                | (2.9)              | 3.1                | 3.4                | (3.0) <sup>H</sup> | 2.9                | (2.7)              | 2.4                | (2.9)              | (2.9)              | 2.7                | 2.7                | 2.7              | C                | C                | 3.1                | (2.9)              | (3.0)              | (2.9) <sup>J</sup> | (2.7) <sup>J</sup> | 2.7                |
| 17     | 2.8                | 2.7                | 2.7                | 2.9                | 2.6                | 3.2                | 3.2                | (2.8)              | 2.7                | (2.8)              | (2.5)              | 2.8                | (2.6)              | (2.7)              | (2.8)              | (3.1)            | 2.8              | 2.7              | 2.8                | (3.0)              | (2.8)              | 2.8                | 2.6                | 2.7                |
| 18     | 2.7                | (3.0)              | (2.4)              | (3.0)              | 2.7                | 3.0                | 3.1                | 2.3                | (3.1)              | (2.9)              | G                  | (2.7)              | (2.7)              | (2.8)              | C                  | C                | C                | C                | C                  | C                  | C                  | C                  | C                  | C                  |
| 19     | C                  | C                  | C                  | C                  | C                  | C                  | C                  | C                  | C                  | C                  | C                  | C                  | C                  | 2.9                | (3.0)              | (3.1)            | 2.9              | 2.9              | 3.0                | (2.9)              | 2.9                | (2.9)              | (2.7)              | (2.8) <sup>J</sup> |
| 20     | 2.9                | (2.8)              | 2.8                | 2.7                | (2.7)              | 3.0                | (3.1)              | (3.5)              | 3.0                | 3.0                | (3.1)              | 2.8                | 2.9                | 2.9                | 2.9                | (2.8)            | 2.8              | 2.7 <sup>K</sup> | 2.6 <sup>K</sup>   | (3.0) <sup>K</sup> | C <sup>K</sup>     | (3.1) <sup>K</sup> | (2.7) <sup>K</sup> | 2.8 <sup>K</sup>   |
| 21     | 3.0 <sup>K</sup>   | 2.7 <sup>K</sup>   | 2.6 <sup>K</sup>   | 2.6 <sup>K</sup>   | (2.7) <sup>K</sup> | (2.8) <sup>K</sup> | (2.4) <sup>K</sup> | (2.7) <sup>K</sup> | G <sup>K</sup>     | (2.2) <sup>K</sup> | 2.3 <sup>K</sup>   | 2.2 <sup>K</sup>   | 2.4 <sup>K</sup>   | 2.3                | (2.6)              | 2.6              | 2.5              | 2.5              | 3.0                | 2.9                | (2.8)              | (2.7) <sup>J</sup> | (2.7) <sup>K</sup> | (2.7) <sup>K</sup> |
| 22     | (2.4) <sup>K</sup> | (2.5) <sup>K</sup> | (2.8) <sup>K</sup> | 2.7 <sup>K</sup>   | (2.7) <sup>K</sup> | 2.9 <sup>K</sup>   | 2.9 <sup>K</sup>   | (2.3) <sup>K</sup> | 2.2 <sup>K</sup>   | (2.3) <sup>K</sup> | (2.9) <sup>K</sup> | (2.3) <sup>K</sup> | C <sup>K</sup>     | C <sup>K</sup>     | (2.7) <sup>K</sup> | 2.4 <sup>K</sup> | 2.7              | 2.8              | 2.8                | 2.8                | 2.8                | 2.6                | (2.5)              | 2.7                |
| 23     | 2.8 <sup>F</sup>   | 2.8 <sup>F</sup>   | 2.9 <sup>F</sup>   | 2.7 <sup>F</sup>   | (2.7) <sup>F</sup> | (3.0)              | (2.7)              | 2.3                | (2.8)              | C                  | 2.6                | (3.0)              | (2.7) <sup>J</sup> | 2.5                | 2.7                | 2.7              | 2.8              | 2.9              | 2.8                | (2.8)              | (2.9)              | (2.8)              | 2.7                | 2.6                |
| 24     | 2.6 <sup>F</sup>   | 2.7                | (2.7) <sup>F</sup> | (2.9) <sup>F</sup> | (3.0) <sup>F</sup> | (3.2) <sup>F</sup> | 3.1                | (2.7) <sup>F</sup> | 2.1                | 2.6                | 2.4                | (2.8)              | A                  | A                  | 2.7                | 2.7              | 2.8              | 2.7              | 2.7                | 2.8                | C                  | C                  | (2.9)              | (2.7)              |
| 25     | (2.7)              | 2.7                | 2.6                | 2.7                | 2.8                | 2.7                | 2.9                | 2.5                | 2.6                | (2.4)              | (2.6)              | (2.8)              | (2.6)              | 2.7                | 2.7                | 2.8              | 2.8              | 2.9              | 2.8                | 2.9                | 2.9                | (2.7) <sup>J</sup> | (2.8)              |                    |
| 26     | (2.9)              | 2.8                | 2.8                | 2.8                | 2.9                | 2.9                | 2.8                | 2.7                | (2.8)              | 2.8                | 2.6                | (2.6)              | (2.7) <sup>J</sup> | (2.7)              | 2.5                | 2.6              | 2.7              | 2.7              | 2.8                | 2.8                | 3.0                | 3.0                | (2.8)              | 2.7                |
| 27     | C                  | (2.9)              | 2.9                | 2.8                | 3.0 <sup>F</sup>   | C                  | C                  | C                  | C                  | C                  | (2.7)              | 2.5                | 2.6                | 2.6                | 2.6                | (2.6)            | 2.7              | 2.8              | 2.8                | (2.9)              | (3.0)              | (2.8)              | (2.7)              | 2.7                |
| 28     | 2.7                | (2.7) <sup>J</sup> | 2.6                | 2.7                | C                  | 2.8                | 2.9                | (2.9) <sup>J</sup> | 2.8                | 2.8                | 2.8                | 2.7                | (2.6)              | (2.8)              | C                  | C                | C                | C                | C                  | C                  | C                  | 2.8                | 2.8                | 2.8                |
| 29     | (2.9)              | 2.7                | 2.7                | 2.7                | 2.7                | 2.9                | 3.1                | 3.0                | 2.8                | (2.7)              | (2.6)              | 2.7                | (2.7)              | 2.6                | 2.7                | (2.8)            | 2.7              | 2.8              | 2.8                | 2.8                | 2.8                | (3.0)              | 2.9                | (2.7)              |
| 30     | (2.7)              | (2.8)              | (2.8) <sup>F</sup> | (2.9) <sup>F</sup> | (2.8) <sup>F</sup> | (3.1) <sup>F</sup> | (3.0)              | 3.0                | 2.8                | C                  | C                  | (2.6)              | (2.5)              | 2.6                | 2.7                | 2.7              | 2.7              | 2.7              | 2.9                | (2.9)              | 2.9                | 2.8                | (2.9)              | 2.7                |
| 31     | (2.6)              | 2.7                | 2.6                | 2.7                | 2.8                | 2.6 <sup>H</sup>   | 2.8                | (2.5)              | 2.6                | A                  | A                  | 2.6                | (2.5)              | 2.7                | 2.7                | 2.8              | 2.8              | 2.8              | 2.9                | 2.9                | 2.8                | 2.8                | 2.7                | 2.7                |
| Sum    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                  |                  |                  |                    |                    |                    |                    |                    |                    |
| Median | 2.7                | 2.7                | 2.8                | 2.8                | 2.8                | 2.9                | 3.0                | 2.7                | 2.8                | 2.7                | 2.6                | 2.7                | 2.6                | 2.7                | 2.7                | 2.8              | 2.8              | 2.8              | 2.9                | 2.9                | 2.9                | (2.8)              | (2.7)              | 2.7                |







TABLE 80  
IONOSPHERE DATA-12

Washington, D.C. Ionosphere Station

National Bureau of Standards  
(Institution)

Hourly values of F1-M3000 for MAY 1946  
(Month)

Records measured by: J.M.C.  
J.L.S.

TIME: 75° W MERIDIAN

| Day    | 00 | 01 | 02 | 03 | 04 | 05 | 06                 | 07               | 08                 | 09                 | 10                 | 11                 | 12                 | 13                 | 14                 | 15                 | 16               | 17                 | 18                 | 19 | 20 | 21 | 22 | 23 |
|--------|----|----|----|----|----|----|--------------------|------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|------------------|--------------------|--------------------|----|----|----|----|----|
| 1      |    |    |    |    |    |    | L                  | L                | 3.5                | (3.7)              | 3.7                | 3.8                | 3.6                | (3.4) <sup>M</sup> | 3.6                | (3.4) <sup>M</sup> | 3.5              | L                  | L                  |    |    |    |    |    |
| 2      |    |    |    |    |    |    |                    | (3.6)            | 3.5                | 3.4                | 3.6                | (3.6)              | C                  | (3.4)              | C                  | L                  | C                | L                  | L                  |    |    |    |    |    |
| 3      |    |    |    |    |    |    |                    | (3.4)            | (3.5)              | 3.5                | 3.6                | (3.6)              | (3.5)              | 3.5                | 3.4                | 3.4                | 3.3              | L                  | L                  |    |    |    |    |    |
| 4      |    |    |    |    |    |    | L                  | L                | 4.3                | 3.8                | 3.5                | (3.8)              | A                  | C                  | C                  | C                  | 3.2              | 3.3                | L                  |    |    |    |    |    |
| 5      |    |    |    |    |    |    |                    | A                | (3.7)              | L                  | 3.4                | (3.3)              | (3.4)              | 3.5                | 3.7                | L                  | (3.5)            | L                  |                    |    |    |    |    |    |
| 6      |    |    |    |    |    |    | 3.0 <sup>K</sup>   | 3.3 <sup>K</sup> | 3.6 <sup>K</sup>   | 3.7 <sup>K</sup>   | 3.5 <sup>K</sup>   | 3.3 <sup>K</sup>   | 3.6 <sup>K</sup>   | 3.5 <sup>K</sup>   | 3.5 <sup>K</sup>   | 3.4 <sup>K</sup>   | 3.3 <sup>K</sup> | L                  | L                  | K  |    |    |    |    |
| 7      |    |    |    |    |    |    | 3.2 <sup>K</sup>   | 3.6 <sup>K</sup> | 3.5 <sup>K</sup>   | 3.6 <sup>K</sup>   | 3.5 <sup>K</sup>   | (3.7) <sup>K</sup> | 3.7 <sup>K</sup>   | (3.6) <sup>K</sup> | C                  | C                  | 3.2 <sup>K</sup> | 3.2 <sup>K</sup>   | L                  | K  |    |    |    |    |
| 8      |    |    |    |    |    |    | K                  | 3.4 <sup>K</sup> | 3.6 <sup>K</sup>   | 3.8 <sup>K</sup>   | (3.9) <sup>K</sup> | C                  | 3.7 <sup>K</sup>   | 3.9 <sup>K</sup>   | (3.5) <sup>K</sup> | 3.3 <sup>K</sup>   | 3.4 <sup>K</sup> | 3.3 <sup>K</sup>   | (3.2) <sup>K</sup> | K  |    |    |    |    |
| 9      |    |    |    |    |    |    | K                  | 3.3 <sup>K</sup> | 3.6 <sup>K</sup>   | 3.8 <sup>K</sup>   | 3.6 <sup>K</sup>   | 3.9 <sup>K</sup>   | 3.6 <sup>K</sup>   | 3.6 <sup>K</sup>   | 3.6 <sup>K</sup>   | 3.6 <sup>K</sup>   | 3.6 <sup>K</sup> | 3.4 <sup>K</sup>   | 3.4 <sup>K</sup>   | K  |    |    |    |    |
| 10     |    |    |    |    |    |    | L                  | 3.5 <sup>K</sup> | (3.6) <sup>K</sup> | 3.9                | (3.7)              | 3.8                | 3.8 <sup>M</sup>   | 3.6                | 3.6                | 3.5                | 3.5              | (3.5)              | L                  |    |    |    |    |    |
| 11     |    |    |    |    |    |    | K                  | 3.4 <sup>K</sup> | (3.7) <sup>K</sup> | (4.1) <sup>K</sup> | (4.0) <sup>K</sup> | 3.7 <sup>K</sup>   | 3.7 <sup>K</sup>   | 3.5 <sup>K</sup>   | 3.6                | 3.4                | 3.4              | 3.4                | L                  |    |    |    |    |    |
| 12     |    |    |    |    |    |    | L                  | 3.4              | 3.5                | 3.6                | 3.7                | 3.6                | 3.6                | C                  | 3.5                | 3.7                | A                | A                  | C                  |    |    |    |    |    |
| 13     |    |    |    |    |    |    |                    | L                | (3.7)              | 3.6                | (3.8)              | (3.6) <sup>M</sup> | (3.5)              | 3.6                | 3.7                | (3.5)              | A                | C                  | C                  |    |    |    |    |    |
| 14     |    |    |    |    |    |    | C                  | C                | C                  | (3.5)              | (3.7)              | 3.7                | 3.7                | A                  | A                  | A                  | 3.3              | A                  | L                  |    |    |    |    |    |
| 15     |    |    |    |    |    |    | L                  | L                | (3.4)              | (3.7)              | 3.7                | (3.7) <sup>M</sup> | A                  | (3.8) <sup>M</sup> | 3.6                | (3.6)              | 3.4 <sup>M</sup> | A                  | L                  |    |    |    |    |    |
| 16     |    |    |    |    |    |    | L                  | 3.6              | 3.7                | 3.6                | 3.6                | 3.7                | 3.8 <sup>M</sup>   | 3.7                | 3.4                | 3.3                | C                | C                  | A                  |    |    |    |    |    |
| 17     |    |    |    |    |    |    | L                  | A                | A                  | (3.4)              | (3.4) <sup>M</sup> | 3.4                | 3.6                | 3.6                | 3.4                | A                  | 3.7              | (3.4)              | L                  |    |    |    |    |    |
| 18     |    |    |    |    |    |    | (3.6)              | 3.0              | 3.5                | (3.8)              | (3.6)              | (3.7)              | 3.7                | (3.6)              | C                  | C                  | C                | C                  | C                  |    |    |    |    |    |
| 19     |    |    |    |    |    |    | C                  | C                | C                  | C                  | C                  | C                  | C                  | 3.4                | (3.6) <sup>M</sup> | (3.3)              | (3.4)            | 3.4                | L                  |    |    |    |    |    |
| 20     |    |    |    |    |    |    | L                  | A                | (3.7)              | (3.5) <sup>M</sup> | 4.0                | (3.8) <sup>M</sup> | 3.7 <sup>M</sup>   | (4.0)              | (3.6)              | 3.5                | (3.5)            | 3.3 <sup>K</sup>   | L                  | K  |    |    |    |    |
| 21     |    |    |    |    |    |    | (3.2) <sup>K</sup> | 3.5 <sup>K</sup> | 3.5 <sup>K</sup>   | 3.9 <sup>K</sup>   | 4.1 <sup>K</sup>   | 4.0 <sup>K</sup>   | 3.7 <sup>K</sup>   | 3.4                | 3.6                | 3.4                | 3.4              | 3.3                | L                  |    |    |    |    |    |
| 22     |    |    |    |    |    |    | K                  | 3.4 <sup>K</sup> | 3.4 <sup>K</sup>   | 3.5 <sup>K</sup>   | 3.7 <sup>K</sup>   | (3.3) <sup>K</sup> | 3.5 <sup>K</sup>   | C                  | 3.4 <sup>K</sup>   | 3.4 <sup>K</sup>   | 3.3              | 3.3                | 3.4                |    |    |    |    |    |
| 23     |    |    |    |    |    |    |                    | (3.5)            | A                  | (3.6)              | 3.7                | 3.7                | 3.8                | 3.4                | 3.4                | 3.3                | 3.5              | 3.5                | L                  |    |    |    |    |    |
| 24     |    |    |    |    |    |    |                    | (3.4)            | (3.7)              | 3.7                | (3.7)              | 3.5                | A                  | A                  | 3.3                | 3.4                | 3.6              | (3.3) <sup>M</sup> | (3.3)              |    |    |    |    |    |
| 25     |    |    |    |    |    |    | (3.3)              | (3.3)            | 3.6                | (3.7) <sup>M</sup> | (3.8) <sup>M</sup> | (4.1)              | (3.9) <sup>M</sup> | (3.7) <sup>M</sup> | 3.5 <sup>M</sup>   | (3.5)              | (3.5)            | (3.5)              | L                  |    |    |    |    |    |
| 26     |    |    |    |    |    |    | (3.4)              | (3.3)            | 3.6                | 3.3                | 3.7                | 3.5                | 3.5                | 3.8                | 3.8                | 3.5                | 3.6              | 3.5                | 3.4                | L  |    |    |    |    |
| 27     |    |    |    |    |    |    | C                  | C                | C                  | C                  | 3.6                | 3.8                | 3.7                | 3.6                | C                  | C                  | (3.2)            | (3.3)              | L                  |    |    |    |    |    |
| 28     |    |    |    |    |    |    | 3.3                | 3.5              | 3.6                | (3.6) <sup>M</sup> | C                  | C                  | C                  | C                  | C                  | C                  | C                | C                  | C                  |    |    |    |    |    |
| 29     |    |    |    |    |    |    | L                  | 3.5              | 3.5                | 3.7                | 3.8                | 3.6                | 3.6                | 3.7                | 3.6                | 3.4                | 3.3              | 3.3                | L                  |    |    |    |    |    |
| 30     |    |    |    |    |    |    | (3.7)              | 3.5              | 3.5                | C                  | C                  | 3.7                | 3.7                | 3.7 <sup>M</sup>   | (3.7) <sup>M</sup> | (3.4)              | 3.4              | 3.5                | L                  |    |    |    |    |    |
| 31     |    |    |    |    |    |    | LH                 | 3.6              | A                  | A                  | A                  | A                  | 3.5                | 3.4                | 3.5                | 3.5                | 3.4              | 3.4                | L                  |    |    |    |    |    |
| Sum    |    |    |    |    |    |    | (3.3)              | 3.4              | 3.6                | 3.6                | 3.7                | 3.7                | 3.7                | 3.6                | 3.6                | 3.4                | 3.4              | 3.4                | (3.3)              |    |    |    |    |    |
| Median |    |    |    |    |    |    |                    |                  |                    |                    |                    |                    |                    |                    |                    |                    |                  |                    |                    |    |    |    |    |    |

Table 81

Ionospheric Storminess, May 1946

| Day | Ionospheric Character* |           | Principal Storms |            | Geomagnetic Character** |           |
|-----|------------------------|-----------|------------------|------------|-------------------------|-----------|
|     | 00-12 GCT              | 12-24 GCT | Beginning<br>GCT | End<br>GCT | 00-12 GCT               | 12-24 GCT |
| May |                        |           |                  |            |                         |           |
| 1   | 2                      | 3         |                  |            | 1                       | 2         |
| 2   | 1                      | 3         |                  |            | 2                       | 1         |
| 3   | 1                      | 1         |                  |            | 1                       | 1         |
| 4   | 1                      | 3         |                  |            | 2                       | 1         |
| 5   | 2                      | 3         |                  |            | 1                       | 2         |
| 6   | 4                      | 5         | 0500             | -----      | 4                       | 3         |
| 7   | 5                      | 6         | -----            | -----      | 4                       | 2         |
| 8   | 4                      | 5         | -----            | -----      | 4                       | 3         |
| 9   | 4                      | 5         | -----            | -----      | 4                       | 4         |
| 10  | 4                      | 3         | -----            | 1400       | 3                       | 3         |
| 11  | 2                      | 4         | 0600             | 1900       | 4                       | 3         |
| 12  | 1                      | 3         |                  |            | 2                       | 2         |
| 13  | 1                      | 3         |                  |            | 2                       | 1         |
| 14  | ***                    | 3         |                  |            | 1                       | 1         |
| 15  | 2                      | 1         |                  |            | 1                       | 1         |
| 16  | 2                      | 2         |                  |            | 2                       | 2         |
| 17  | 1                      | 2         |                  |            | 2                       | 2         |
| 18  | 1                      | 2         |                  |            | 3                       | 2         |
| 19  | ***                    | 3         |                  |            | 1                       | 0         |
| 20  | 2                      | 3         | 2200             | -----      | 1                       | 3         |
| 21  | 4                      | 4         | -----            | 1800       | 4                       | 3         |
| 22  | 4                      | 4         | 0300             | 2100       | 4                       | 3         |
| 23  | 2                      | 1         |                  |            | 3                       | 4         |
| 24  | 3                      | 1         |                  |            | 3                       | 3         |
| 25  | 2                      | 3         |                  |            | 3                       | 2         |
| 26  | 1                      | 3         |                  |            | 2                       | 2         |
| 27  | 1                      | 0         |                  |            | 1                       | 1         |
| 28  | 2                      | 2         |                  |            | 2                       | 2         |
| 29  | 1                      | 1         |                  |            | 2                       | 1         |
| 30  | 1                      | 2         |                  |            | 1                       | 2         |
| 31  | 2                      | 3         |                  |            | 3                       | 2         |

\*Ionosphere character figure (I-figure) for ionospheric storminess at Washington, D.C., during 12-hour period, on an arbitrary scale of 0 to 9, 9 representing the greatest disturbance.

\*\*Average for 12 hours of American magnetic K-figure, determined by a number of observatories, on an arbitrary scale of 0 to 9, 9 representing the greatest disturbance.

✓Dashes indicate continuing storm.

\*\*\*No readable record.

Table 82

Sudden Ionosphere Disturbances Observed at Washington, D.C.

| Day   | GCT       |      | Location of transmitters                                 | Relative intensity at minimum* |
|-------|-----------|------|--|--------------------------------|
|       | Beginning | End  |  |                                |
| May 2 | 1124      | 1215 | England  | 0.0                            |
| 2     | 1758      | 1940 | Ohio, D.C., England, Trinidad, Gold Coast                | 0.0                            |
| 3     | 2120      | 2220 | Ohio, D.C., England, Mexico, Trinidad, Hawaii, Chile     | 0.0                            |
| 7     | 1150      | 1212 | England  | 0.0                            |
| 7     | 1911      | 1945 | Ohio, D.C., Trinidad, Gold Coast                         | 0.05                           |
| 8     | 1254      | 1340 | Ohio, D.C.   | 0.0                            |
| 11    | 2214      | 2240 | Ohio, D.C., Mexico, Hawaii, Gold Coast                   | 0.1                            |
| 13    | 1522      | 1550 | England  | 0.1                            |
| 17    | 1424      | 1440 | Ohio, D.C., England, Mexico, Trinidad, Chile, Gold Coast | 0.1                            |
| 23    | 1430      | 1454 | England  | 0.05                           |
|       | 1501      | 1519 | England  | 0.1                            |
|       | 1527      | 1610 | England  | 0.1                            |

\*Ratio of received field intensity during SID to average field intensity before and after, for station WSXAL, 6080 kilocycles, 600 kilometers distant, for all SID except the first on May 2, the first on May 7, and on May 13 and 23. Station GLH, 13525 kilocycles, received in New York, 5340 kilometers distant, was used for these SID.



Table 31

Sudden Ionosphere Disturbances Reported by Engineer-in-Chief

Cable and Wireless, Ltd.

Table 31 (continued)

| Day<br>May | GCT<br>Beginning | GCT<br>End | Receiving<br>Station | Locations of<br>transmitters   | Day<br>May | GCT<br>Beginning | GCT<br>End | Receiving<br>Station | Locations of<br>transmitters   |
|------------|------------------|------------|----------------------|--|------------|------------------|------------|----------------------|--|
| 2          | 1125             | 1220       | Brentwood, England   | Austria, Belgian Congo,<br>Brazil, Bulgaria, Canary<br>Islands, Chile, Curacao,<br>Greece, India, Iran,<br>Kenya, Mozambique, Nether-<br>lands Gullana, Palestine,<br>Portugal, Southern Rho-<br>desia, Spain, Switzerland,<br>Syria, Thailand, Turkey,<br>U.S.S.R., Yugoslavia,<br>Zanzibar | 7          | 1135             | 1230       | Brentwood, England   | Belgian Congo, Brasil,<br>Bulgaria, Chile, Colombia,<br>Curacao, Greece, India,<br>Kenya, Malta, Mozambique,<br>Netherlands Gullana, South-<br>ern Rhodesia, Spain,<br>Switzerland, Turkey,<br>U.S.S.R., Yugoslavia,<br>Zanzibar |
| 2          | 1125             | 1150       | Somerton, England    | Argentina, Ascension Is-<br>land, Barbados, Canada,<br>China, Egypt, Gold Coast,<br>India, Japan, New York,<br>Union of South Africa   | 7          | 1155             | 1215       | Somerton, England    | Argentina, Barbados,<br>Canada, Egypt, New York,<br>Union of South Africa  |
| 2          | 1210             | 1920       | Somerton, England    | Argentina, Barbados,<br>Canada, Egypt, New York  |            |                  |            |                      |  |
| 3          | 0620             | 0735       | Brentwood, England   | Austria, Bulgaria,<br>French Equatorial Africa,<br>Greece, Iran, Iran,<br>Kenya, Madagascar,<br>Mozambique, Southern<br>Rhodesia, Switzerland,   |            |                  |            |                      |  |
| 5          | 0610             | 0820       | Brentwood, England   | Bulgaria, Falkland Is-<br>lands, Greece, India,<br>Iran, Kenya, Madagascar,<br>Mozambique, Syria, U.S.S.R.   |            |                  |            |                      |  |
| 6          | 0610             | 0625       | Brentwood, England   | Bulgaria, Greece, India,<br>Iran, Kenya, Southern<br>Rhodesia, Switzerland,<br>Syria, U.S.S.R.   |            |                  |            |                      |  |

Table 84  
Provisional Radio Propagation Quality Figures  
April 1946  
Compared with IRPL Warnings and IRPL Probable Disturbed Period Forecasts

| Day | North Atlantic |              |   |                 | North Pacific  |              |   |                 |
|-----|----------------|--------------|---|-----------------|----------------|--------------|---|-----------------|
|     | Quality Figure | IRPL Warning | IRPL Probable Disturbed Period Forecast | Geo-magnetic KA | Quality Figure | IRPL Warning | IRPL Probable Disturbed Period Forecast | Geo-magnetic KA |
| 1   | 5 6            |              |   | 1-12 G1         | 5 6            |              |   | 1-12 G1         |
| 2   | 5 5            | X X          | X                                       | 1-12 G1         | 5 6            | X X          | X                                       | 1-12 G1         |
| 3   | 5 6            | X            | X                                       | 1-12 G1         | 5 6            | X            | X                                       | 1-12 G1         |
| 4   | 6 6            |              |   | 1-12 G1         | 5 6            |              |   | 1-12 G1         |
| 5   | 6 6            |              | X                                       | 1-12 G1         | 5 6            |              | X                                       | 1-12 G1         |
| 6   | 6 6            |              | X                                       | 1-12 G1         | 5 6            |              | X                                       | 1-12 G1         |
| 7   | 6 7            |              | X                                       | 1-12 G1         | 5 6            |              | X                                       | 1-12 G1         |
| 8   | 5 7            |              |   | 1-12 G1         | 5 6            |              |   | 1-12 G1         |
| 9   | 5 6            |              |   | 1-12 G1         | 5 6            |              |   | 1-12 G1         |
| 10  | 5 6            |              |   | 1-12 G1         | 5 6            |              |   | 1-12 G1         |
| 11  | 5 7            |              |   | 1-12 G1         | 5 6            |              |   | 1-12 G1         |
| 12  | 6 6            |              |   | 1-12 G1         | 5 6            |              |   | 1-12 G1         |
| 13  | 5 6            |              |   | 1-12 G1         | 5 6            |              |   | 1-12 G1         |
| 14  | 5 6            |              |   | 1-12 G1         | 5 6            |              |   | 1-12 G1         |
| 15  | (4) 5          | X X          | X                                       | 1-12 G1         | 5 6            | X X          | X                                       | 1-12 G1         |
| 16  | 5 6            | X            | X                                       | 1-12 G1         | 5 6            | X            | X                                       | 1-12 G1         |
| 17  | 6 7            |              |   | 1-12 G1         | 5 6            |              |   | 1-12 G1         |
| 18  | 5 6            |              |   | 1-12 G1         | 5 6            |              |   | 1-12 G1         |
| 19  | 6 7            |              |   | 1-12 G1         | 5 6            |              |   | 1-12 G1         |
| 20  | 6 7            |              |   | 1-12 G1         | 5 6            |              |   | 1-12 G1         |
| 21  | 6 7            |              |   | 1-12 G1         | 5 6            |              |   | 1-12 G1         |
| 22  | 6 7            |              |   | 1-12 G1         | 5 6            |              |   | 1-12 G1         |
| 23  | (4)(3)         |              |   | 1-12 G1         | 5 6            |              |   | 1-12 G1         |
| 24  | (2)(3)         | X X          | X                                       | 1-12 G1         | 5 6            | X X          | X                                       | 1-12 G1         |
| 25  | (4) 5          | X X          | X                                       | 1-12 G1         | 5 6            | X X          | X                                       | 1-12 G1         |
| 26  | 6 6            |              |   | 1-12 G1         | 5 6            |              |   | 1-12 G1         |
| 27  | 6 7            |              |   | 1-12 G1         | 5 6            |              |   | 1-12 G1         |
| 28  | 6 6            |              |   | 1-12 G1         | 5 6            |              |   | 1-12 G1         |
| 29  | 5 6            |              |   | 1-12 G1         | 5 6            |              |   | 1-12 G1         |
| 30  | 6 7            |              |   | 1-12 G1         | 5 6            |              |   | 1-12 G1         |

Quality Figure Scale:

- 1 = Useless
- 2 = Very poor
- 3 = Poor
- 4 = Poor to fair
- 5 = Fair
- 6 = Fair to good
- 7 = Good
- 8 = Very good
- 9 = Excellent

Symbols

- X = Warning given or probable disturbed date.
- H = Quality 4 or worse on day or half day of warning.
- M = Quality 4 or worse on day or half day of no warning.
- G = Quality 5 or better on day of no warning.
- (S) = Quality 5 on day of warning.
- S = Quality 6 or better on day of warning.
- ( ) = Quality 4 or worse (disturbed).

Geomagnetic KA on the standard scale of 0 to 9, 9 representing the greatest disturbance.

Score:

|     |    |     |    |    |
|-----|----|-----|----|----|
| H   | 4  | 4   | 3  | 3  |
| M   | 0  | 0   | 1  | 1  |
| G   | 19 | -14 | 18 | 13 |
| (S) | 4  | 5   | 3  | 6  |
| S   | 3  | 7   | 5  | 7  |

\* Broadcast on WWV, Washington, D.C. Times of warnings recorded to nearest half-day as broadcast.  
\*\* In addition to dates marked X, the following were designated as probable disturbed days on forecasts more than eight days in advance of said dates:

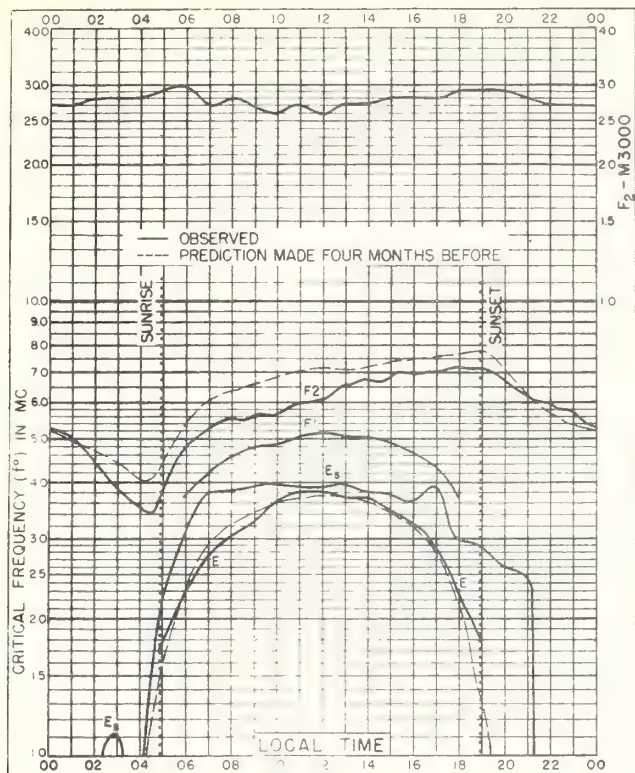


Fig. 1. WASHINGTON, D.C.  
39.0°N, 77.5°W

MAY, 1946

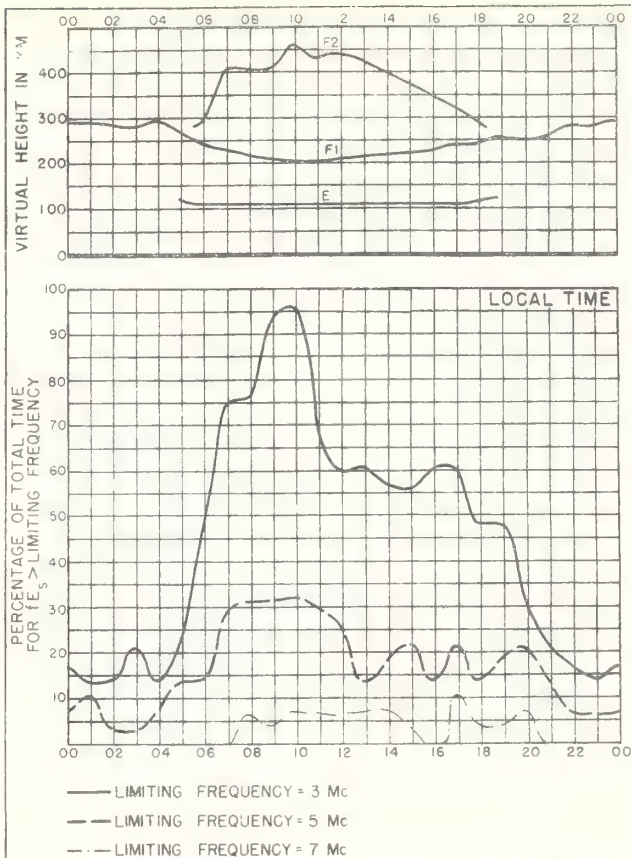


Fig. 2. WASHINGTON, D.C.

MAY, 1946

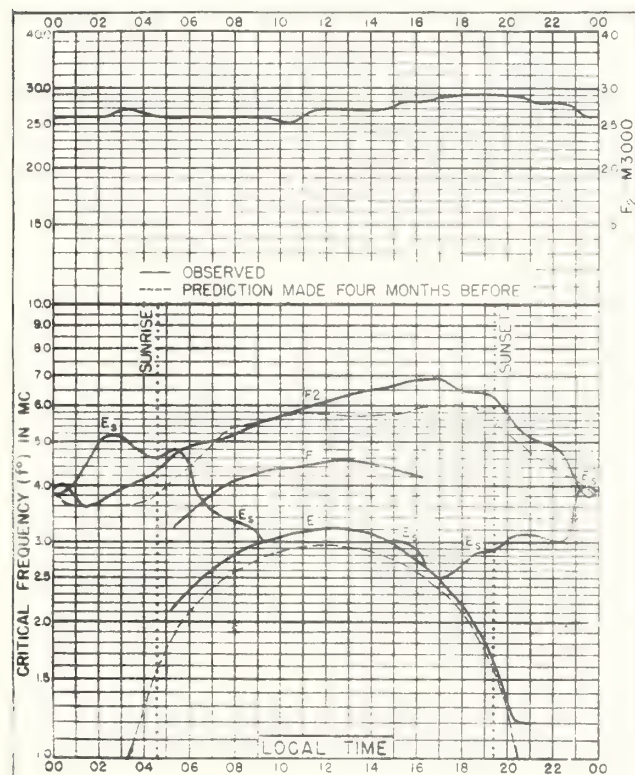


Fig. 3. FAIRBANKS, ALASKA  
64.9°N, 147.8°W

APRIL, 1946

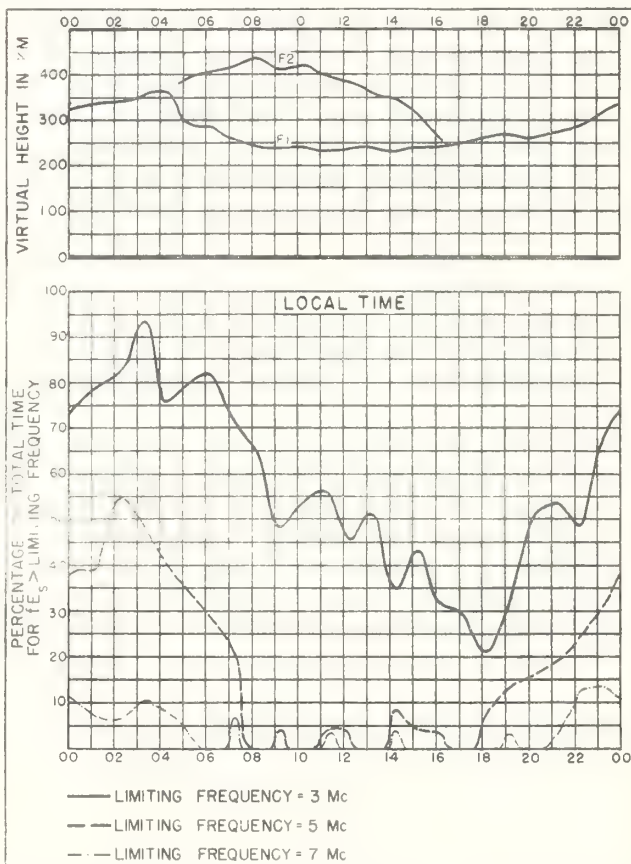


Fig. 4. FAIRBANKS, ALASKA

APRIL, 1946



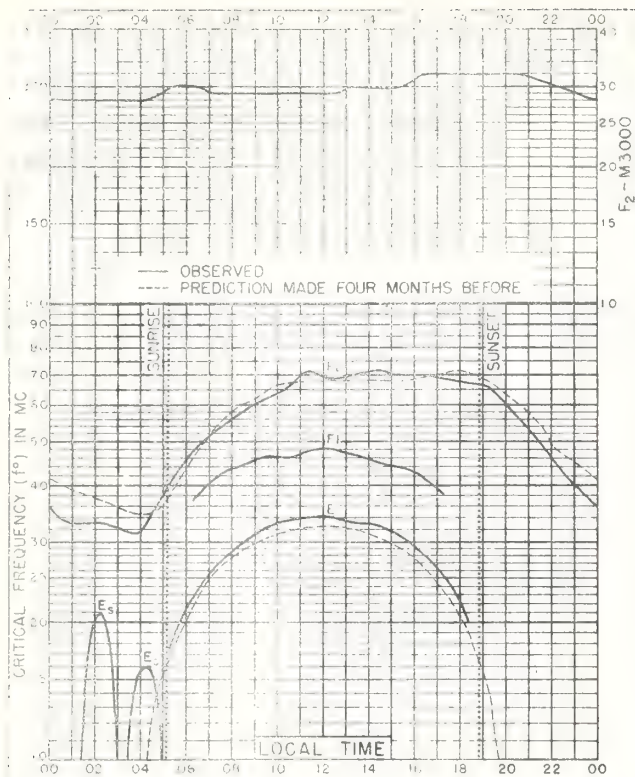


Fig. 5 PRINCE RUPERT, CANADA  
54.3°N, 130.3°W

APRIL, 1946

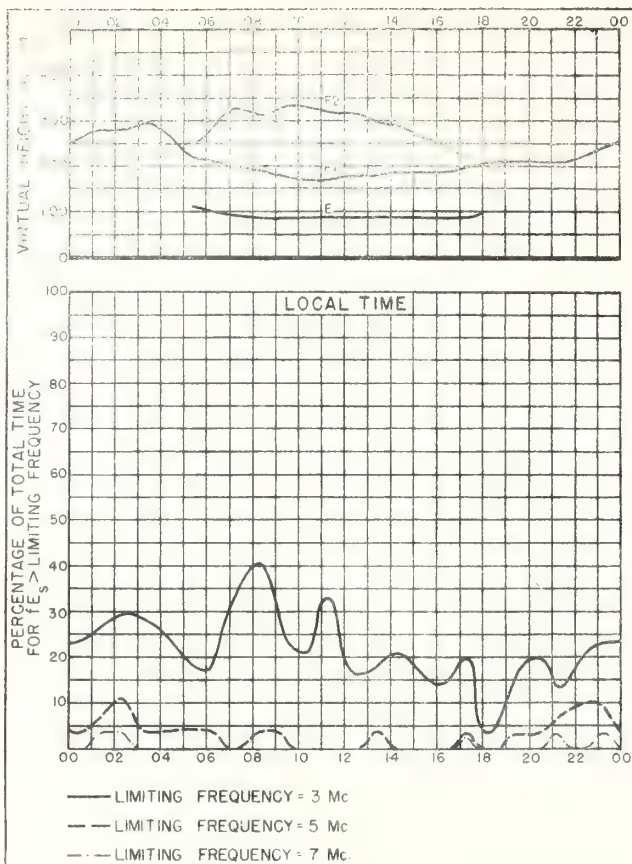


Fig. 6. PRINCE RUPERT, CANADA

APRIL, 1946

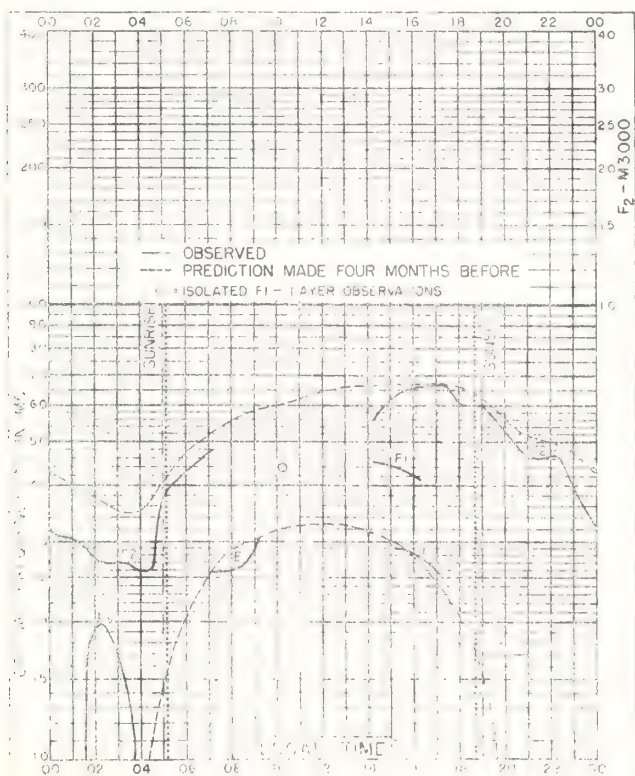


Fig. 7. SWAN RIVER, MANITOBA  
52.1°N, 101.25°W

APRIL, 1946

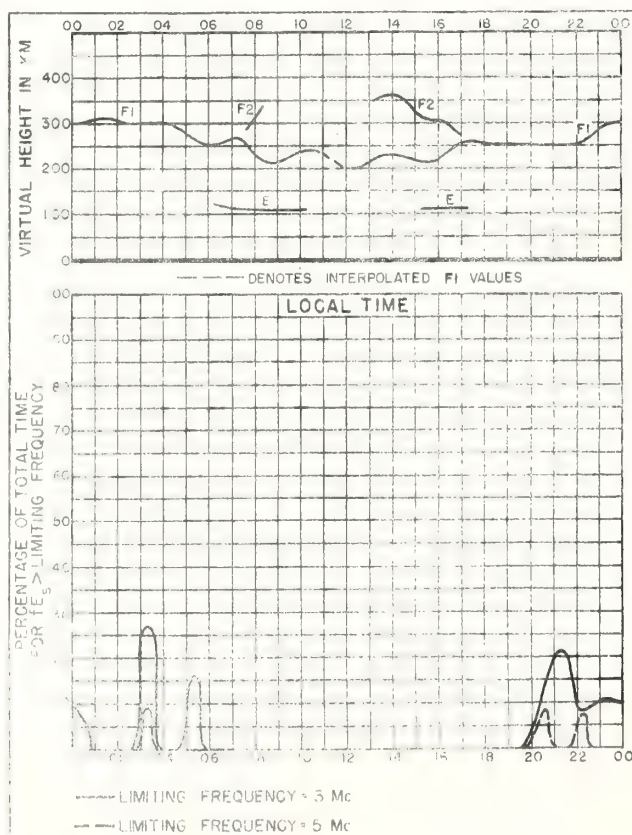
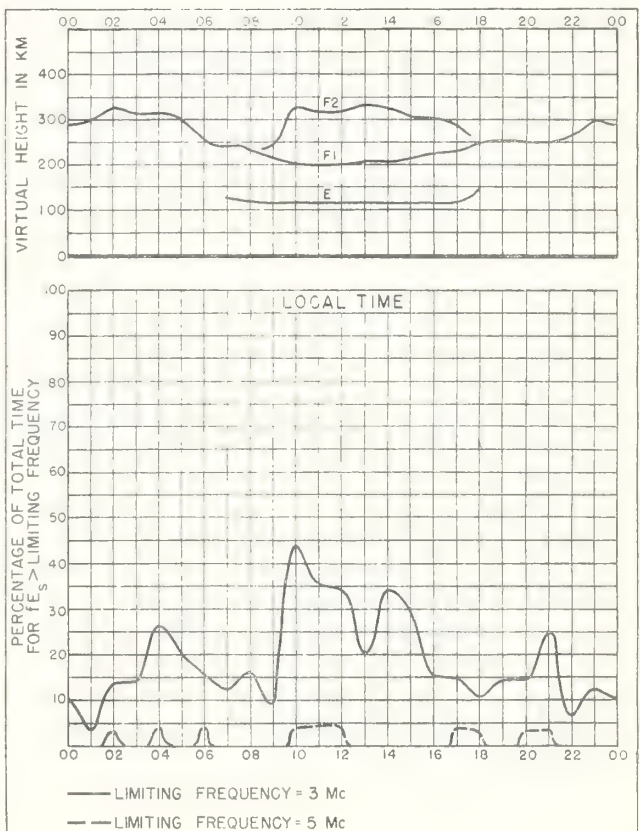
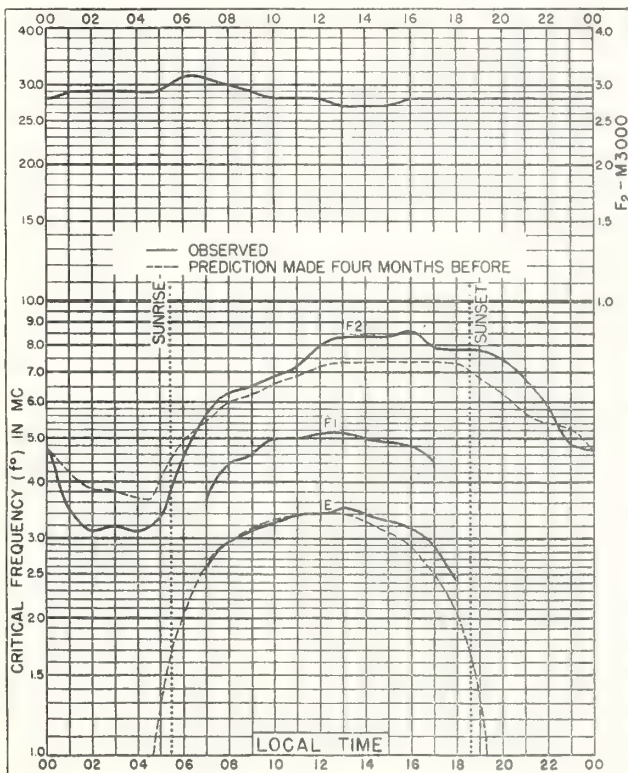
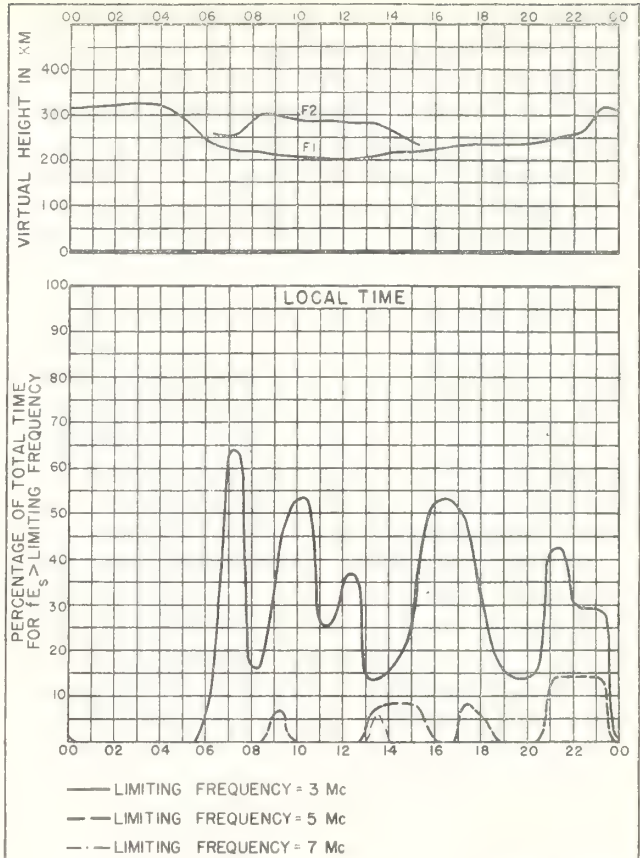
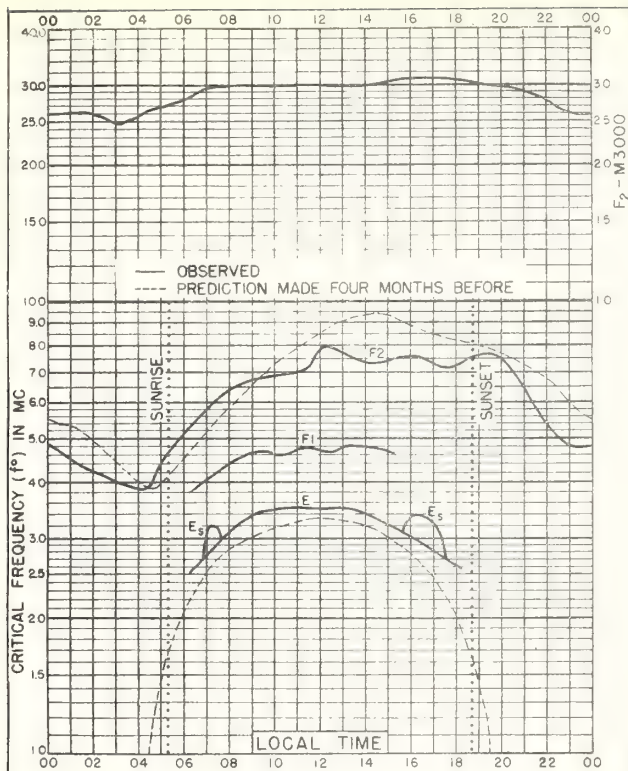


Fig. 8. SWAN RIVER, MANITOBA

APRIL, 1946





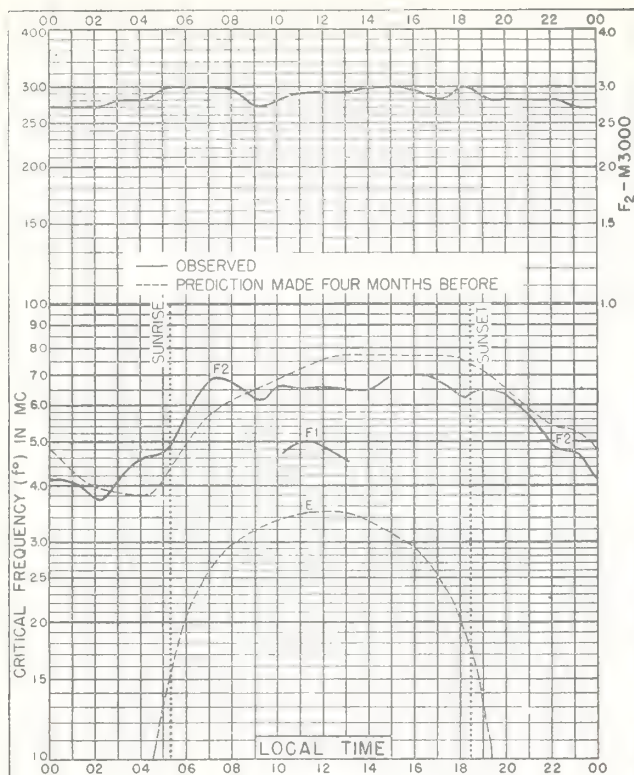


Fig. 13. BOSTON, MASSACHUSETTS  
42.4°N, 71.2°W

APRIL, 1946

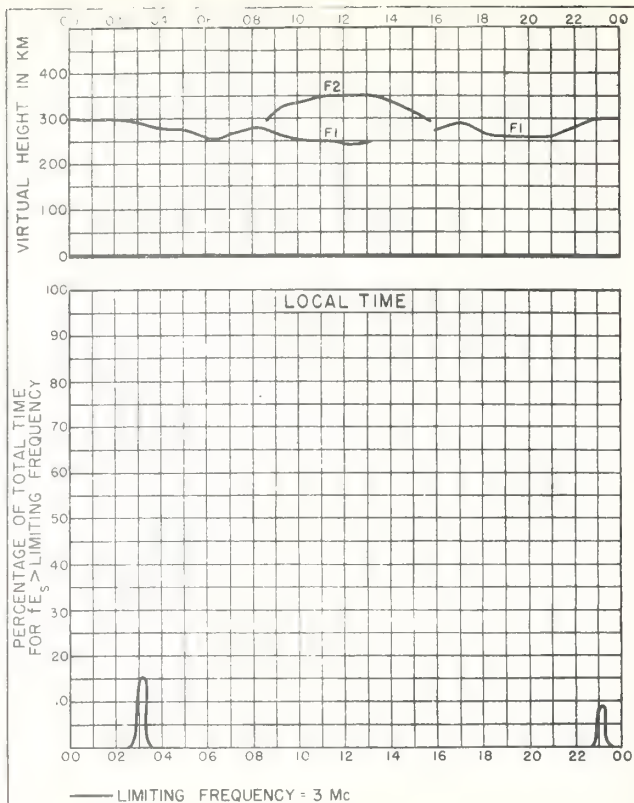


Fig. 14. BOSTON, MASSACHUSETTS

APRIL, 1946

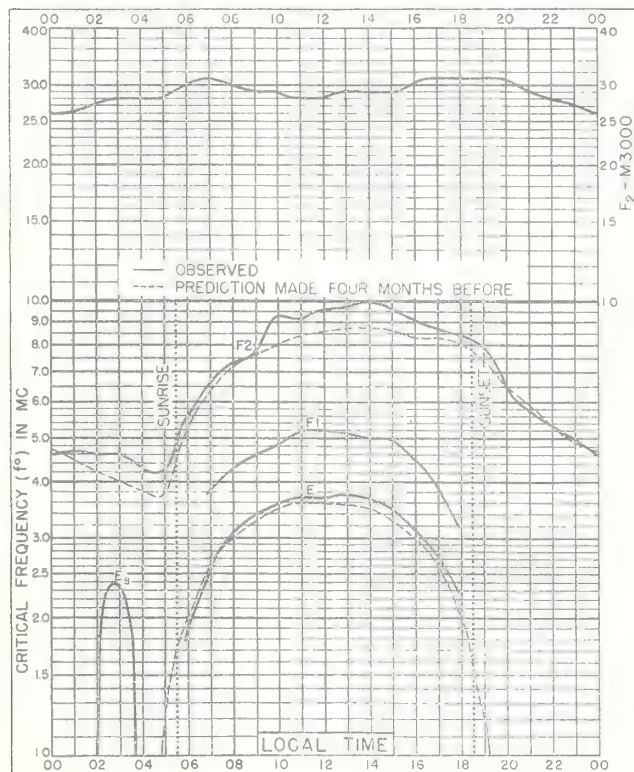


Fig. 15. SAN FRANCISCO, CALIFORNIA  
37.4°N, 122.2°W

APRIL, 1946

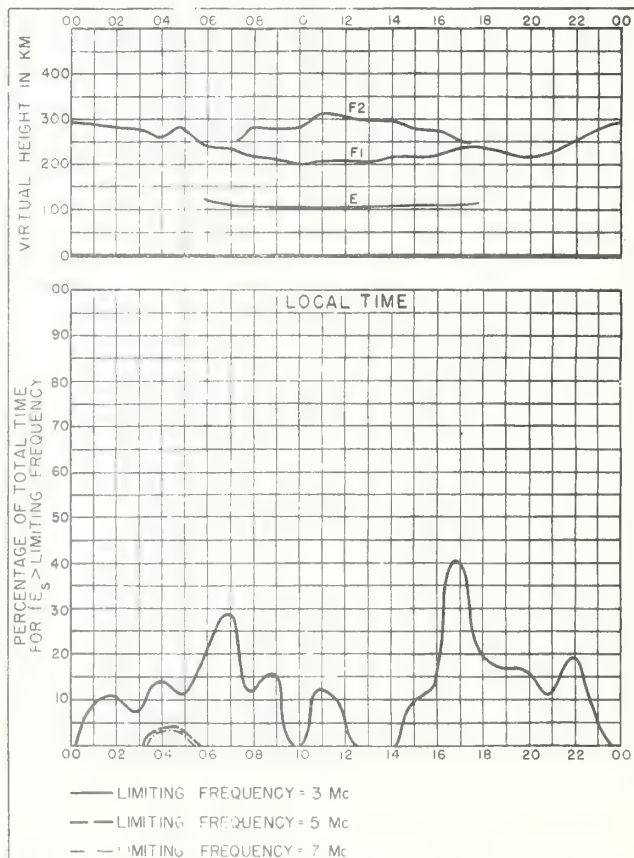


Fig. 16. SAN FRANCISCO, CALIFORNIA

APRIL, 1946



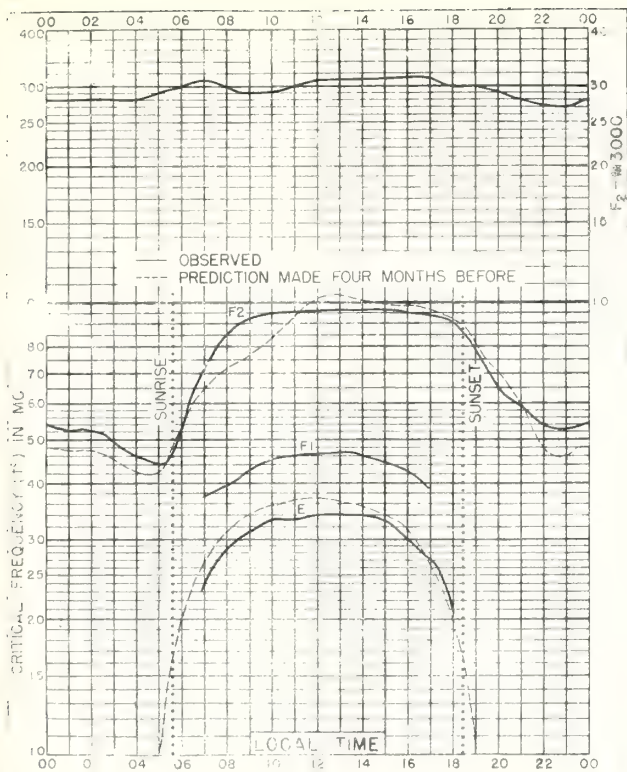


Fig 17. BATON ROUGE, LOUISIANA  
30 5°N, 91 2°W  
APRIL, 1946

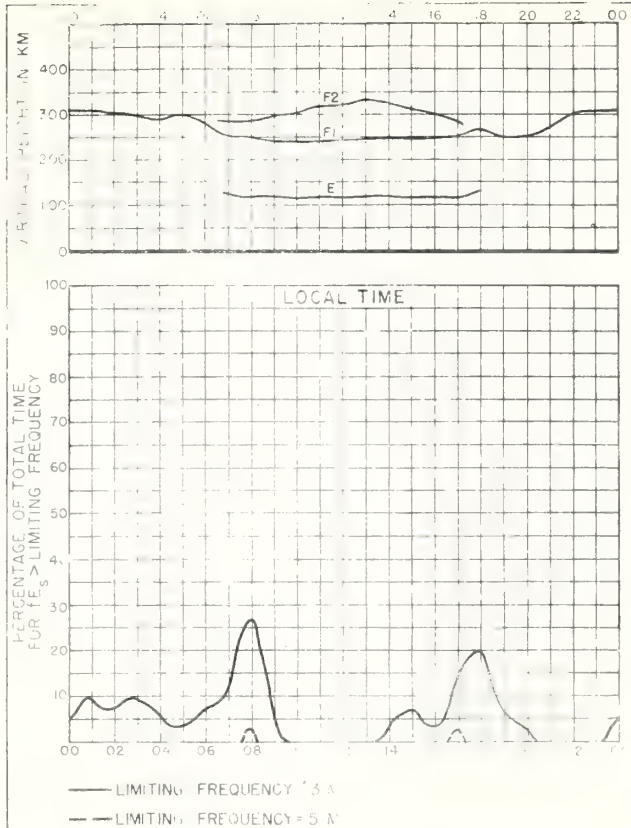


Fig 18. BATON ROUGE, LOUISIANA  
APRIL, 1946

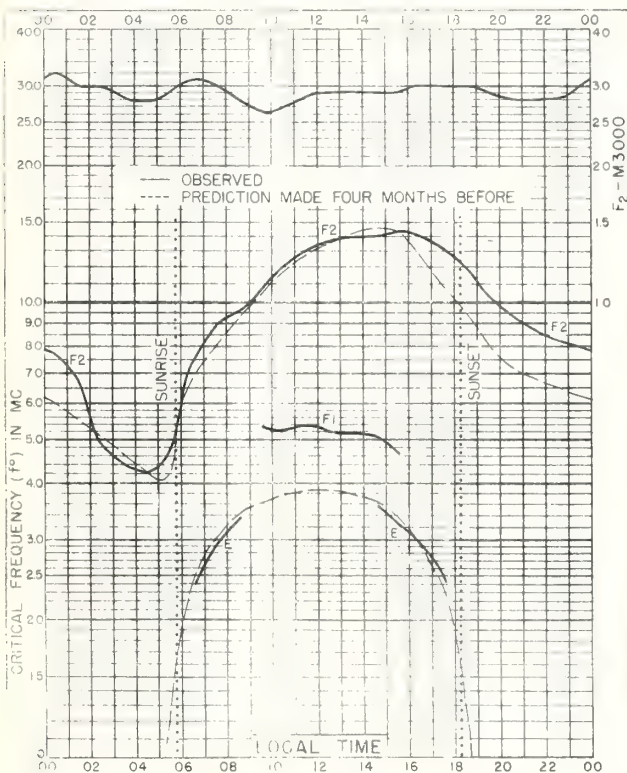


Fig. 19. MAUI, HAWAII  
20.8°N, 156.5°W  
APRIL, 1946

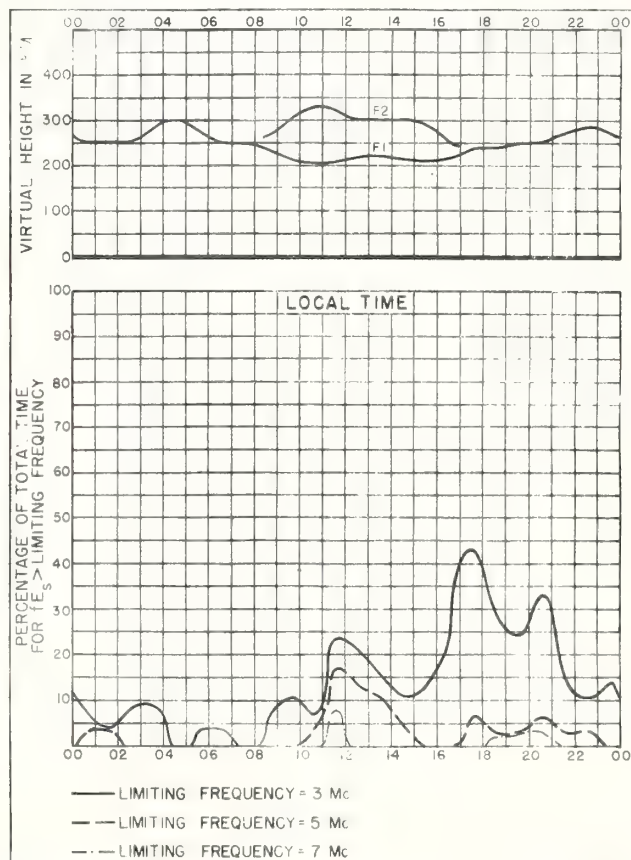


Fig.20. MAUI, HAWAII  
APRIL, 1946

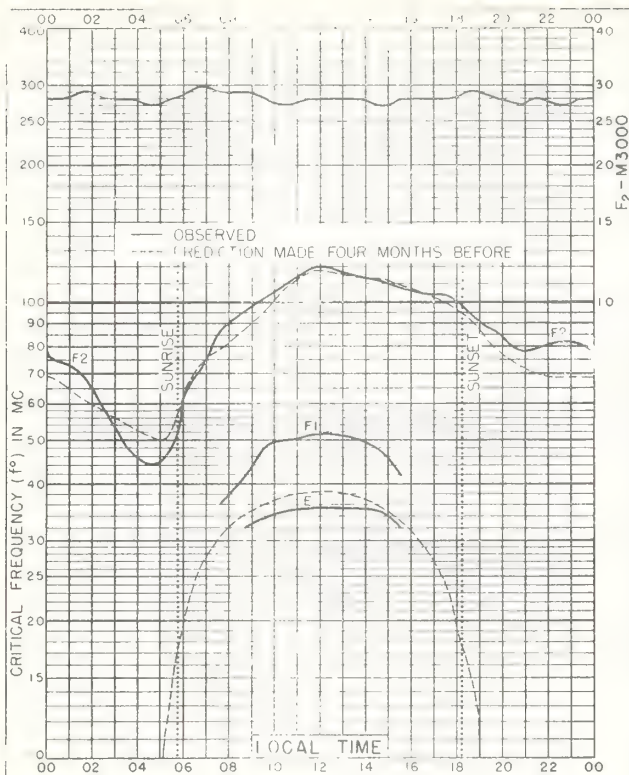


Fig. 21. SAN JUAN, PUERTO RICO  
18.4°N, 66.1°W

APRIL, 1946

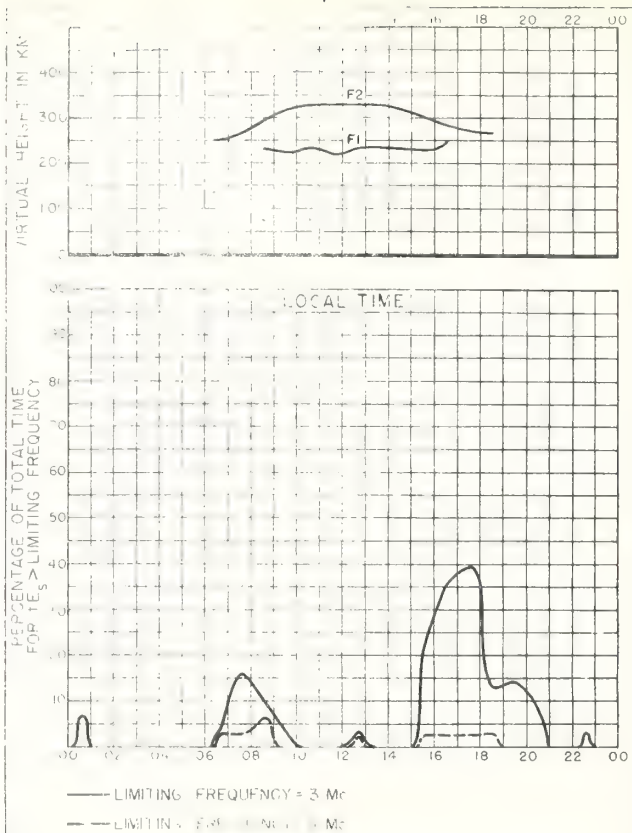


Fig. 22. SAN JUAN, PUERTO RICO

APRIL, 1946

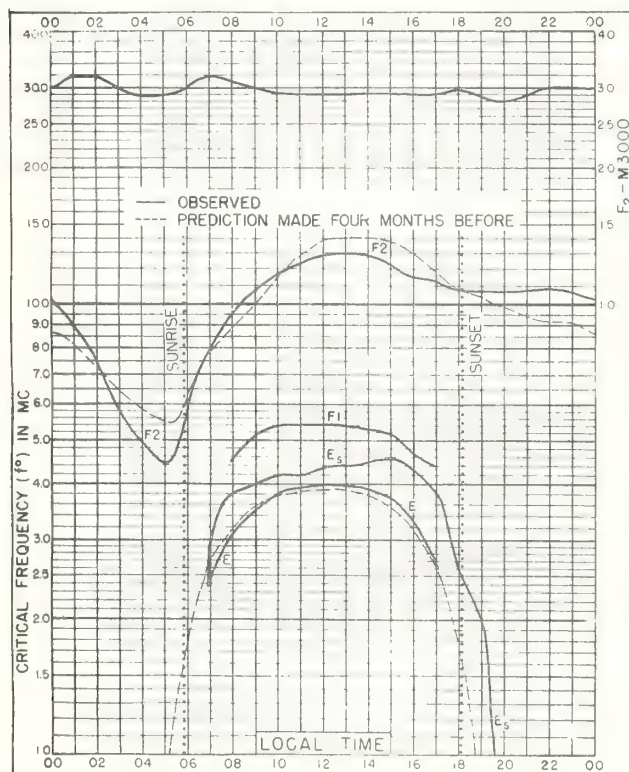


Fig. 23. TRINIDAD, BRIT. WEST INDIES  
10.6°N, 61.2°W

APRIL, 1946

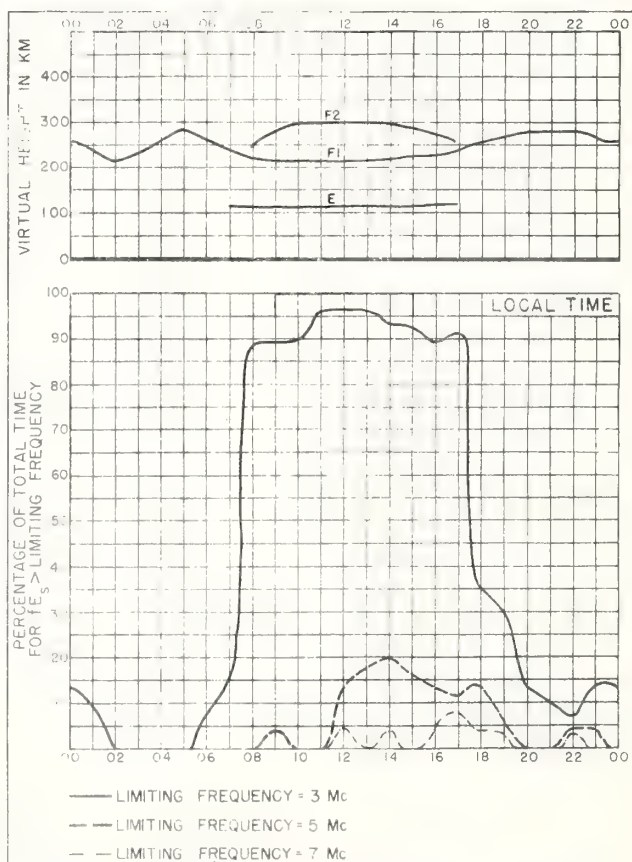


Fig. 24. TRINIDAD, BRIT. WEST INDIES

APRIL, 1946



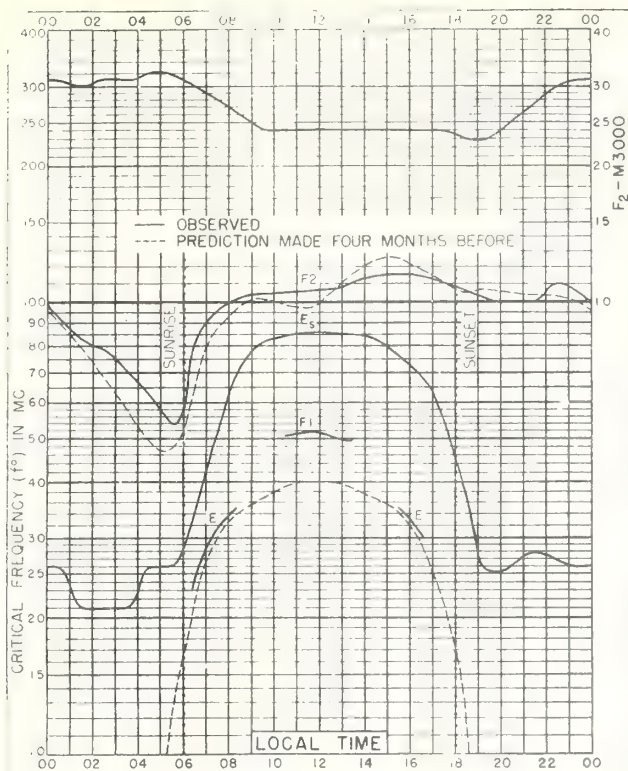


Fig.25. CHRISTMAS I.  
1.9°N, 157.3°W.

APRIL, 1946

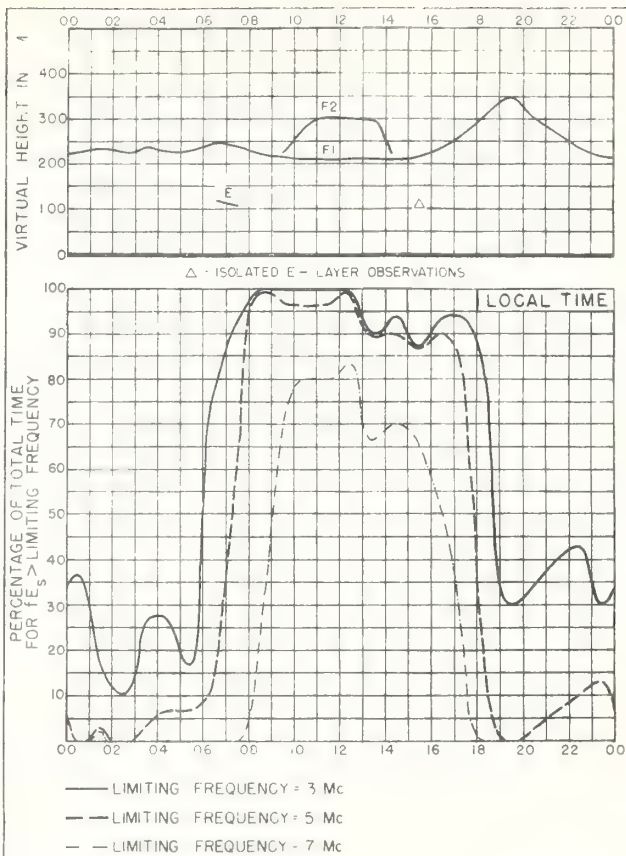


Fig.26. CHRISTMAS IS.

APRIL, 1946

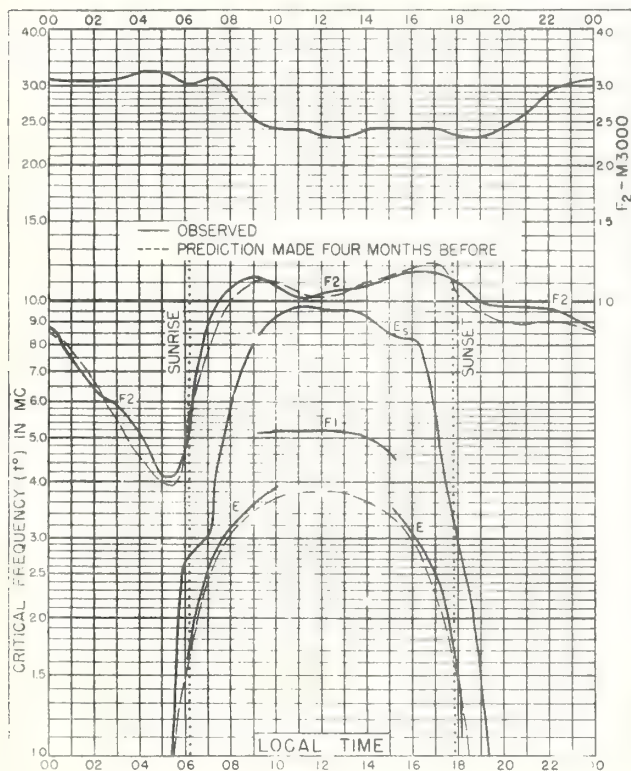


Fig.27. HUANCAYO, PERU  
12.0°S, 75.3°W

APRIL, 1946

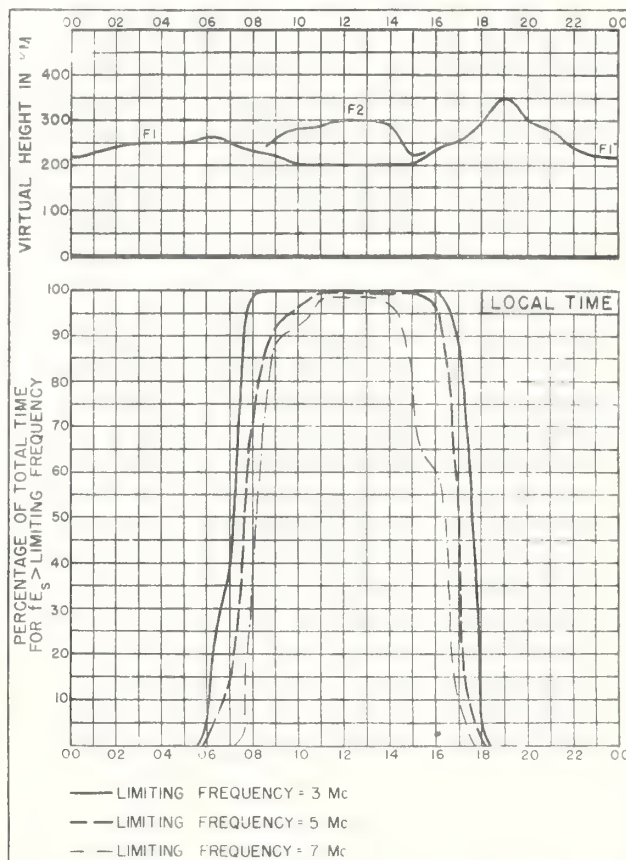


Fig.28. HUANCAYO, PERU

APRIL, 1946



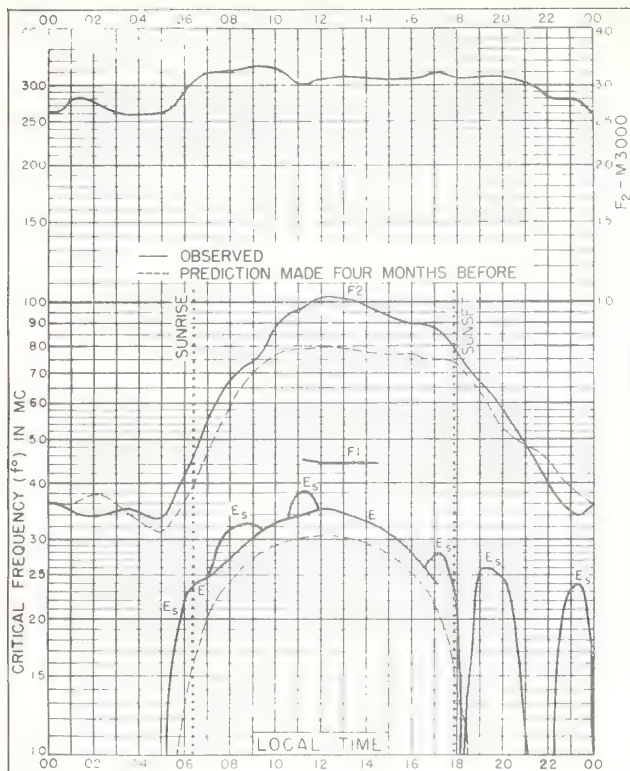


Fig 29. ADAK, ALASKA  
519°N, 1766°W

MARCH, 1946

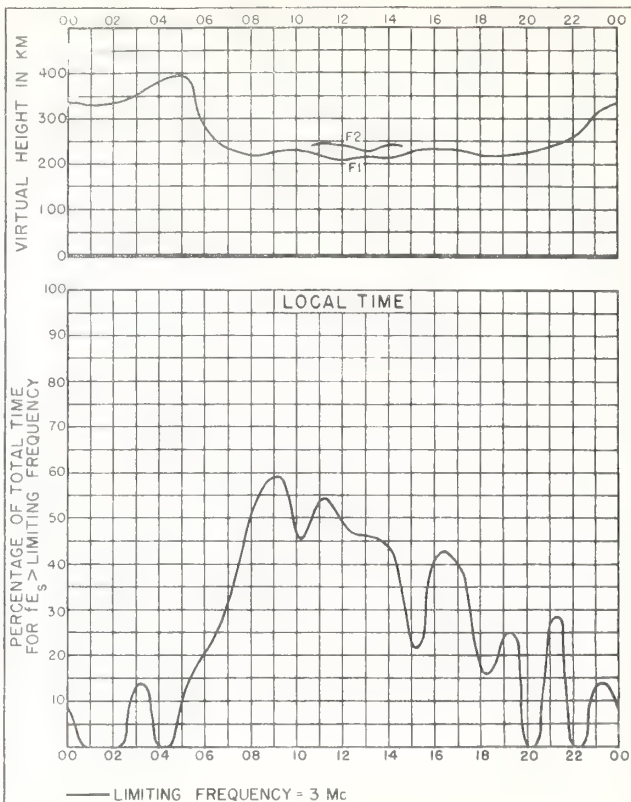


Fig 30. ADAK, ALASKA

MARCH, 1946

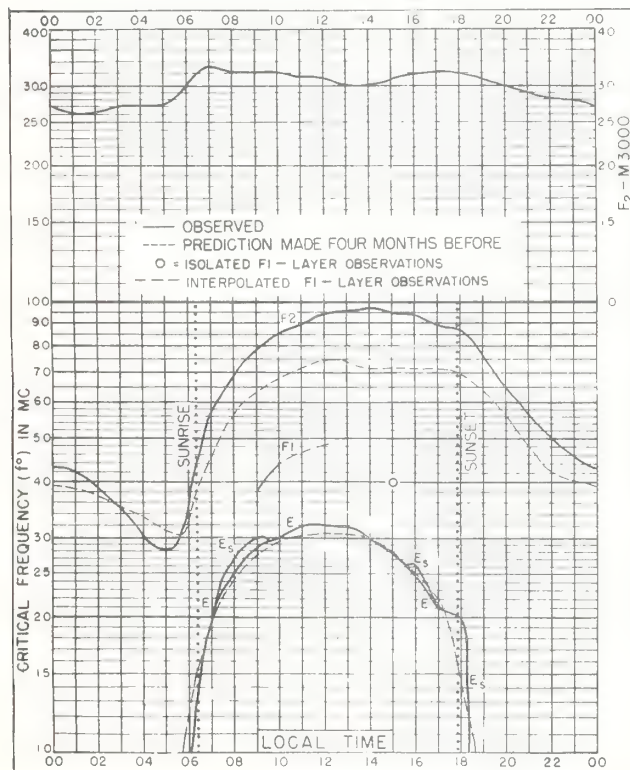


Fig. 31. GREAT BADDOW, ENGLAND  
51.7°N, 0.5°E

MARCH, 1946

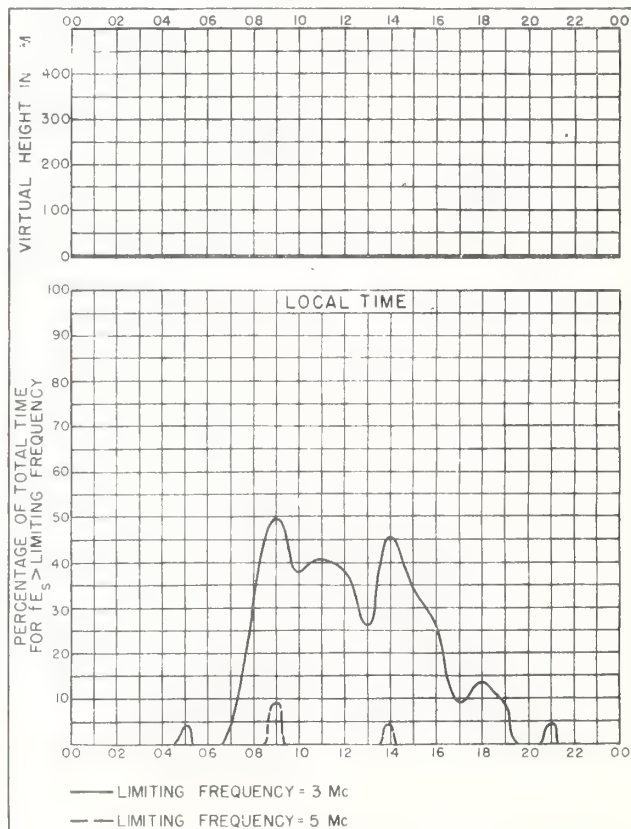
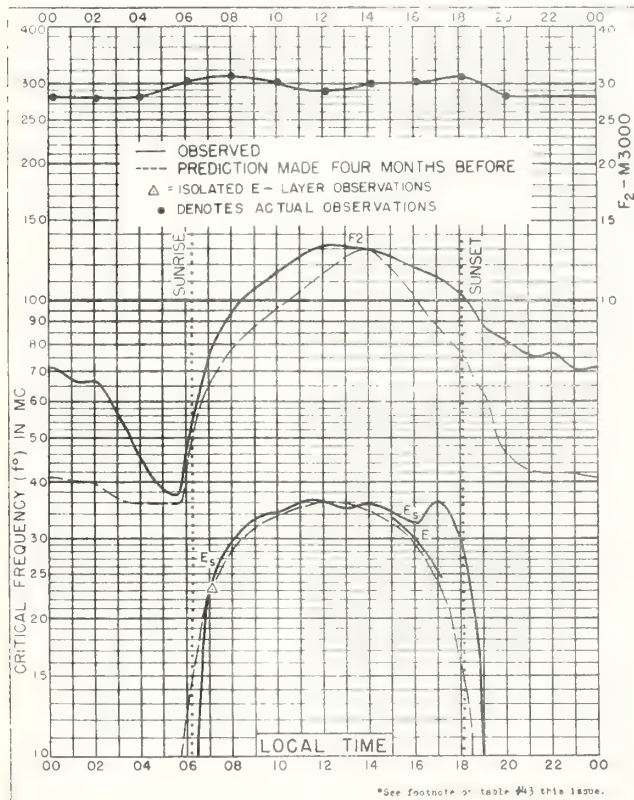
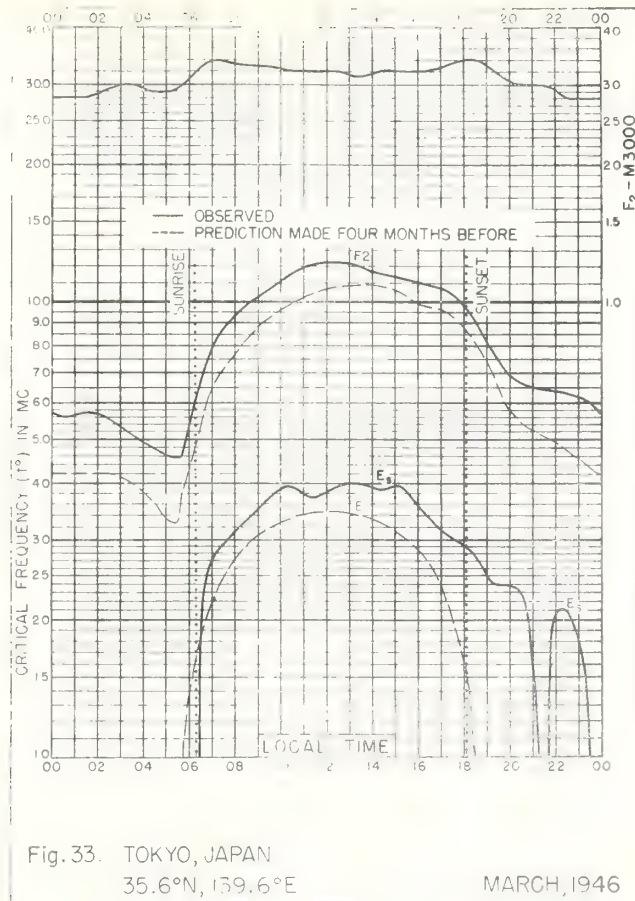


Fig. 32. GREAT BADDOW, ENGLAND

MARCH, 1946





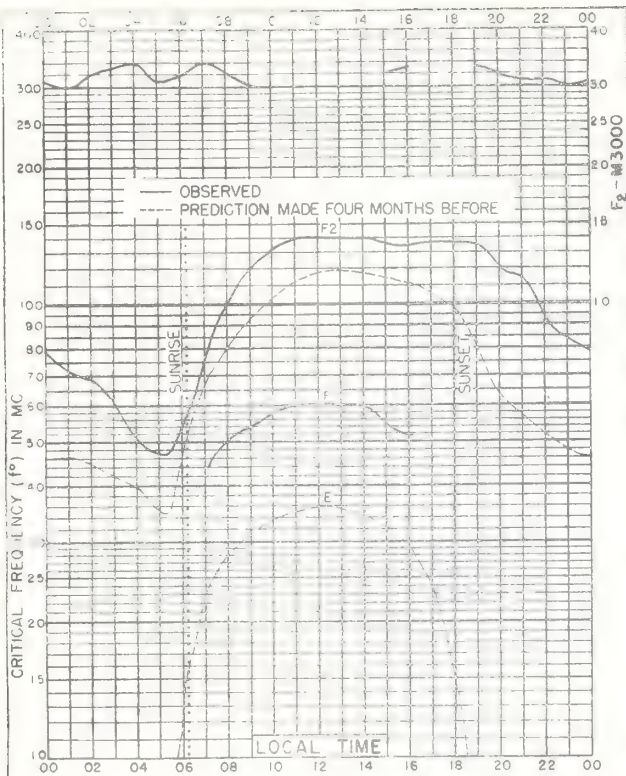


Fig 36. CHUNGKING, CHINA  
29.4°N, 106 8°E

MARCH, 1946

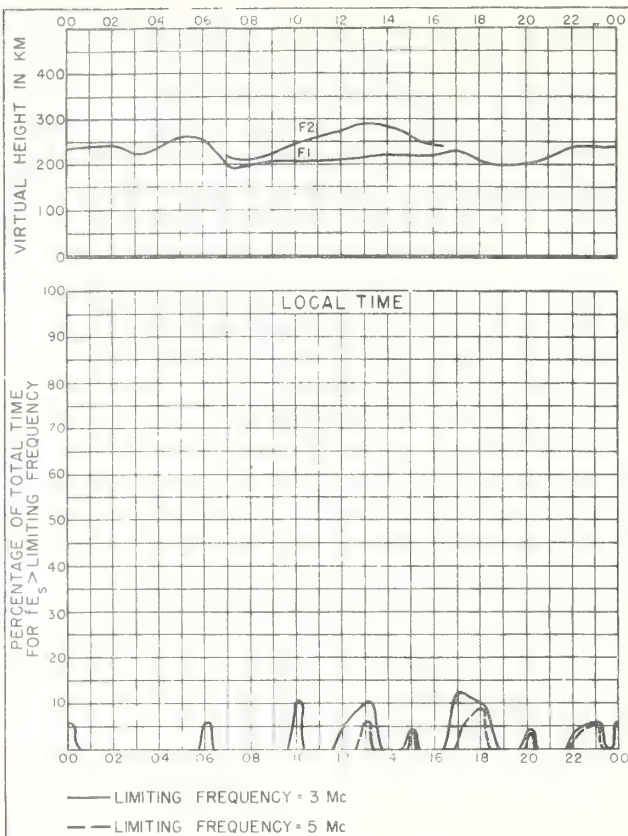


Fig 37. CHUNGKING, CHINA

MARCH, 1946

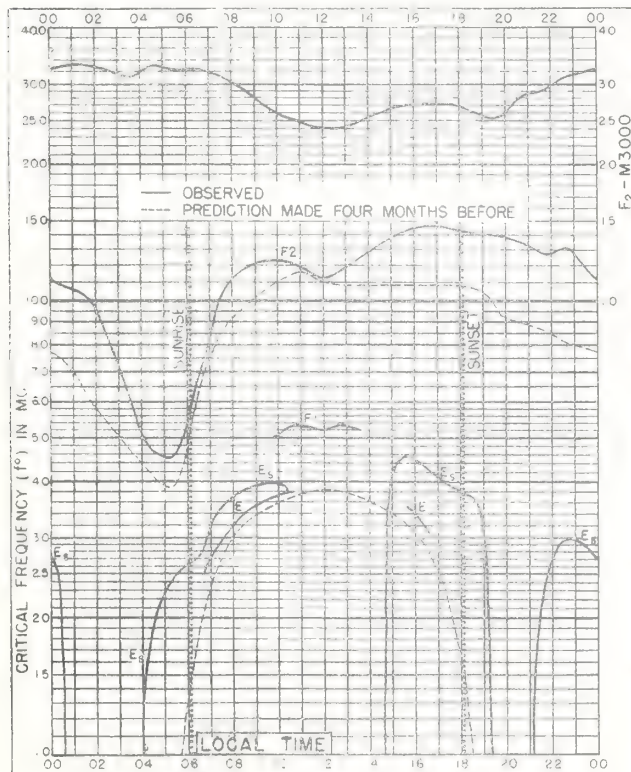


Fig 38. GUAM I.  
13.5°N, 144 8°E

MARCH, 1946

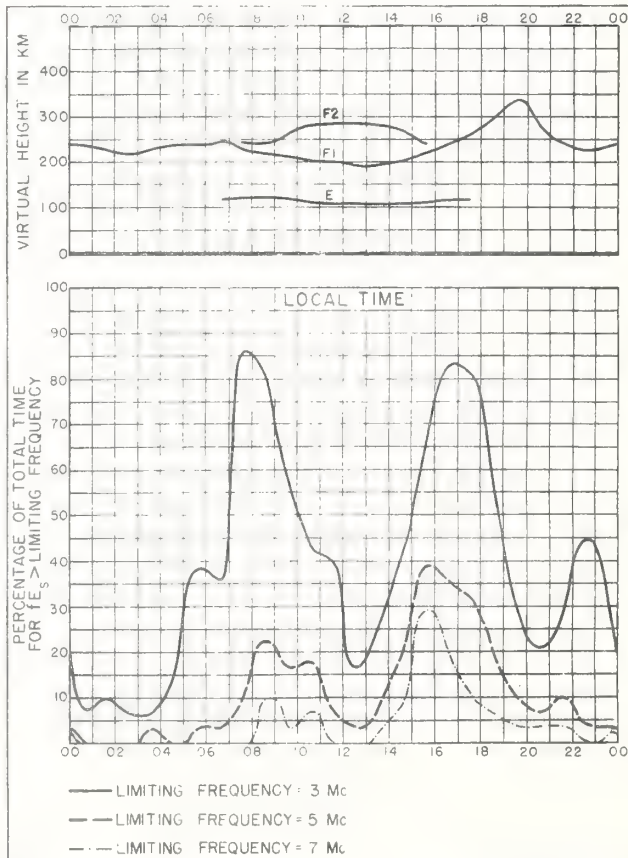


Fig 39. GUAM I

MARCH, 1946



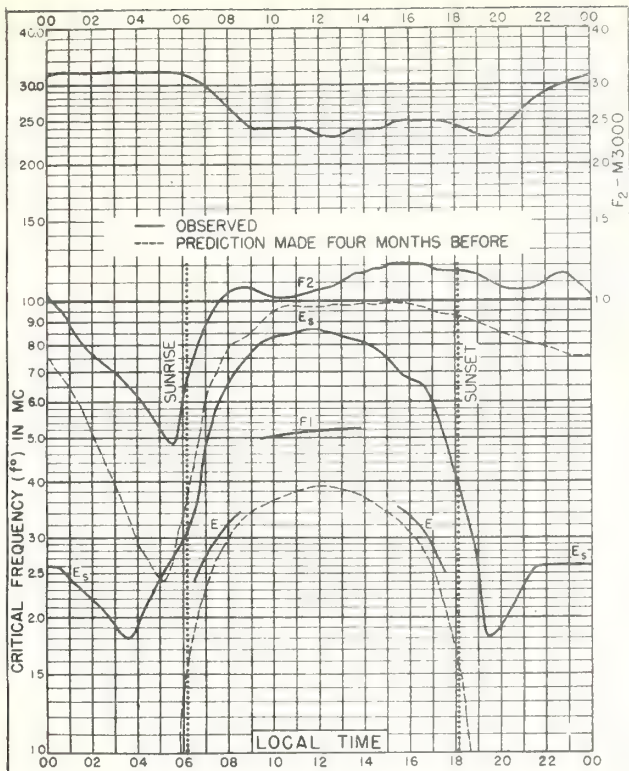


Fig.40. CHRISTMAS I.  
1.9°N, 157.3°W

MARCH, 1946

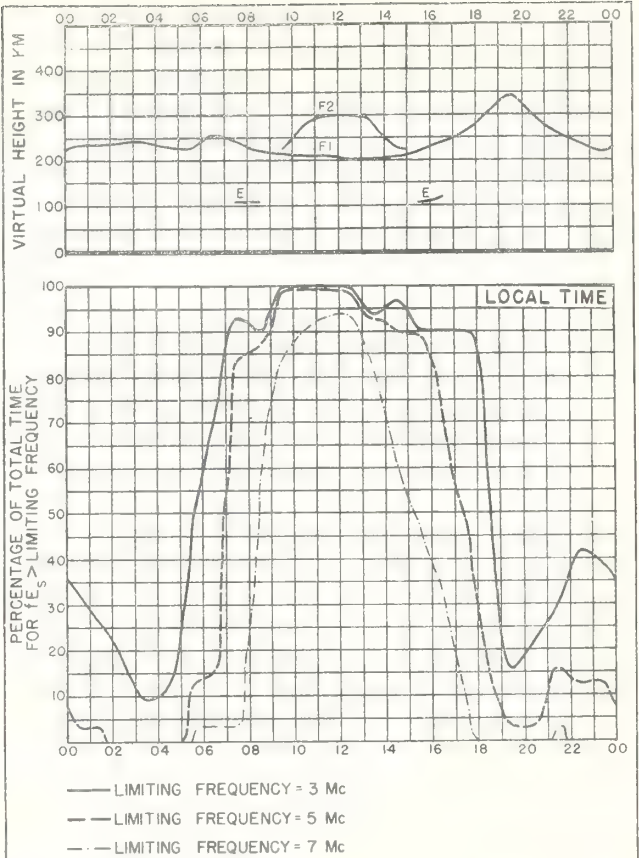


Fig.41. CHRISTMAS I.

MARCH, 1946

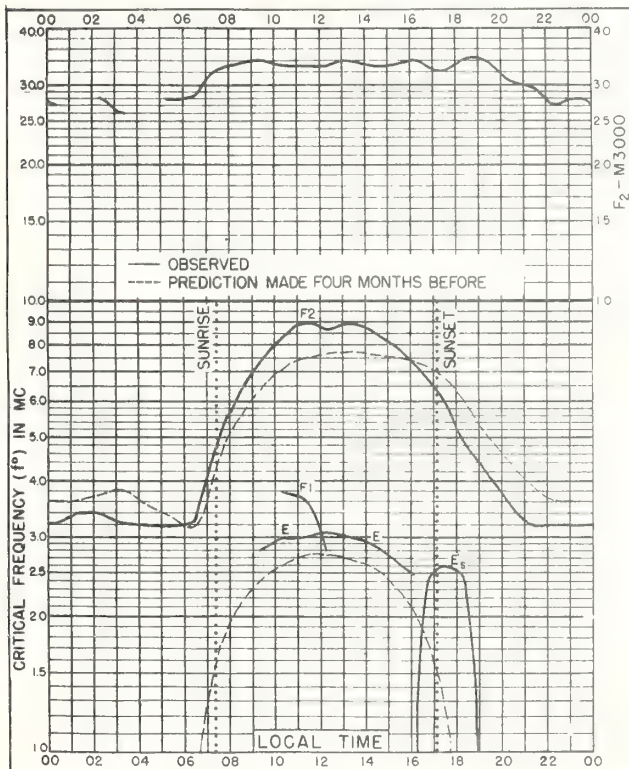


Fig.42. ADAK, ALASKA  
51.9°N, 176.6°W

FEBRUARY, 1946

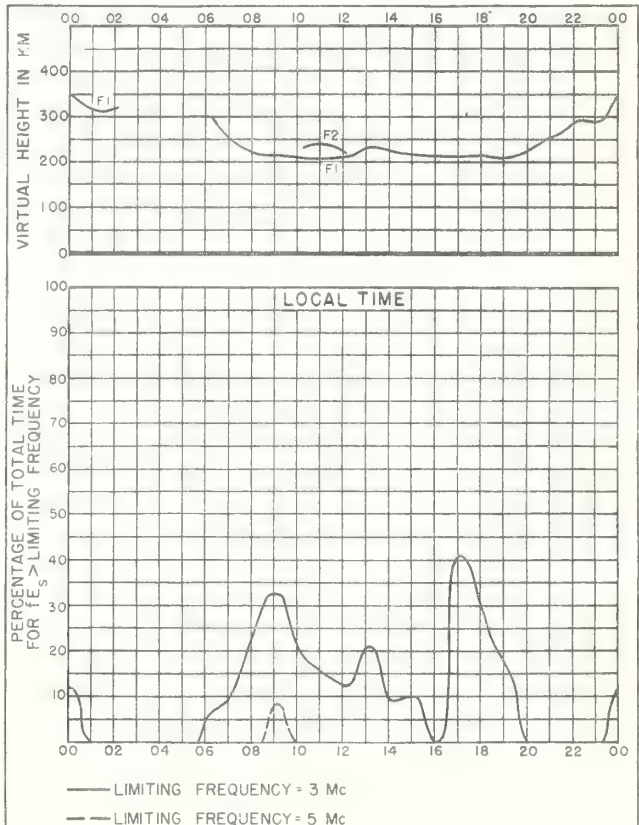
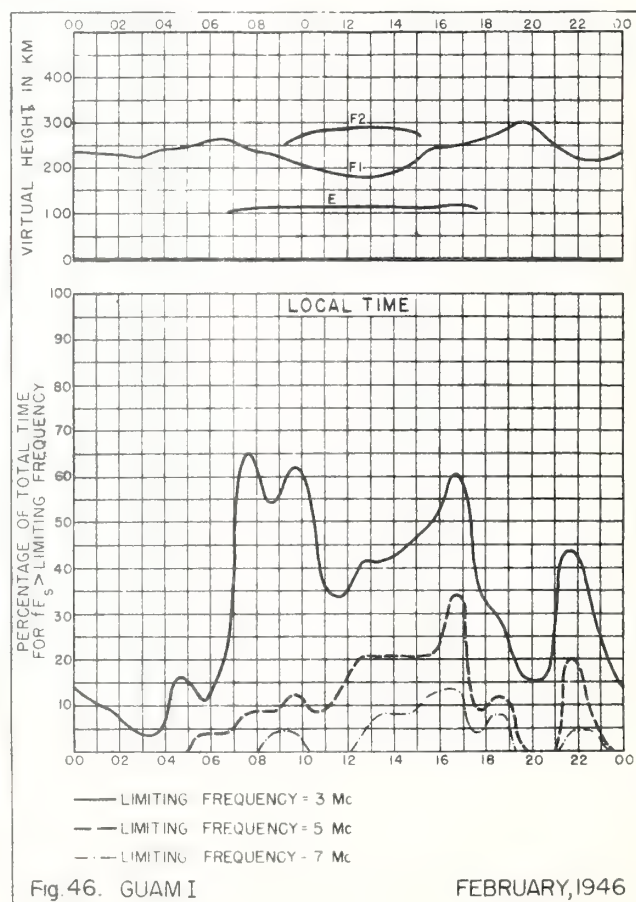
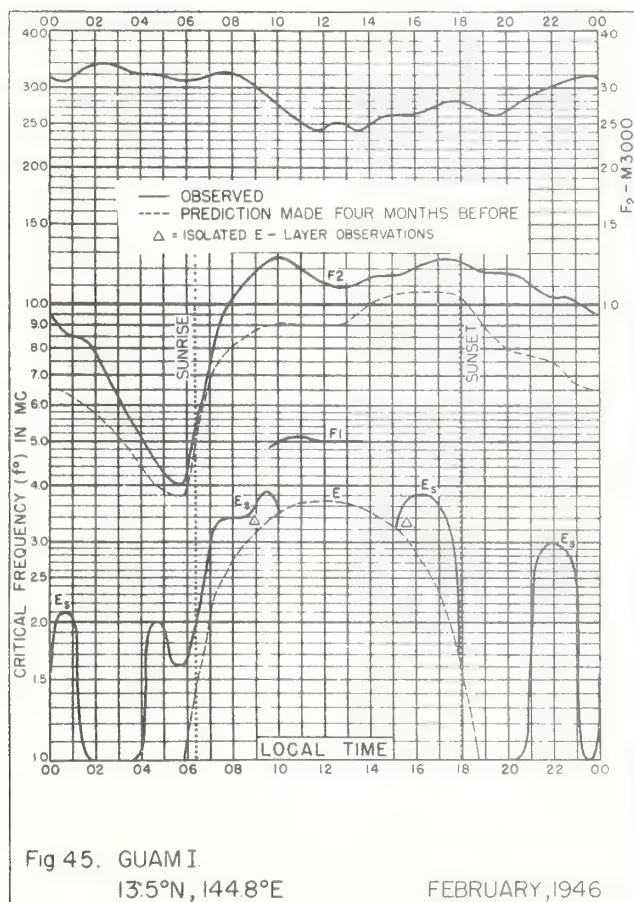
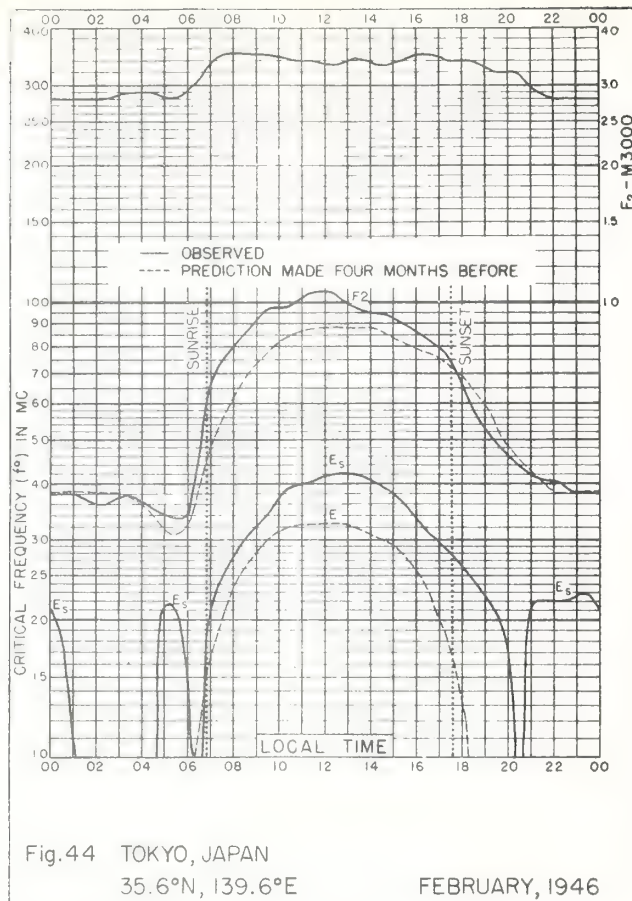


Fig.43. ADAK, ALASKA

FEBRUARY, 1946





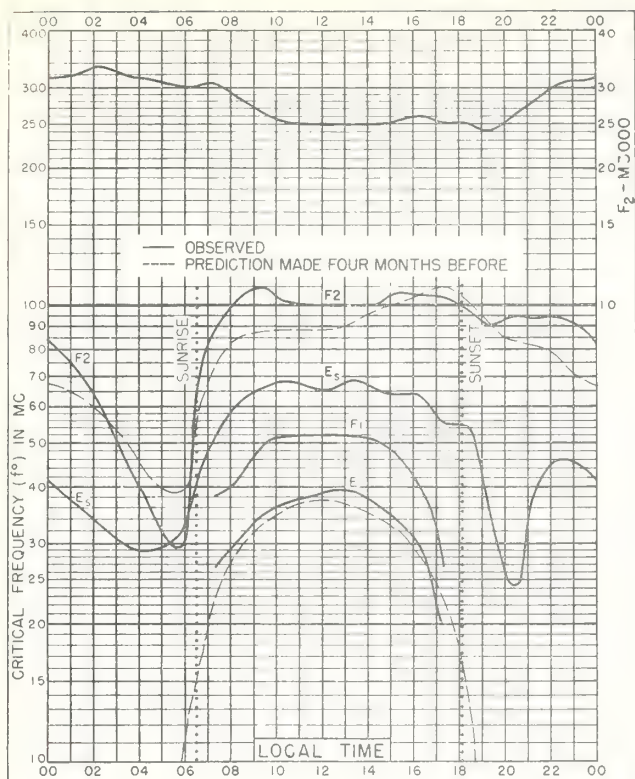


Fig. 47. LEYTE, PHILIPPINE IS.

11.0°N, 125.0°E

FEBRUARY, 1946

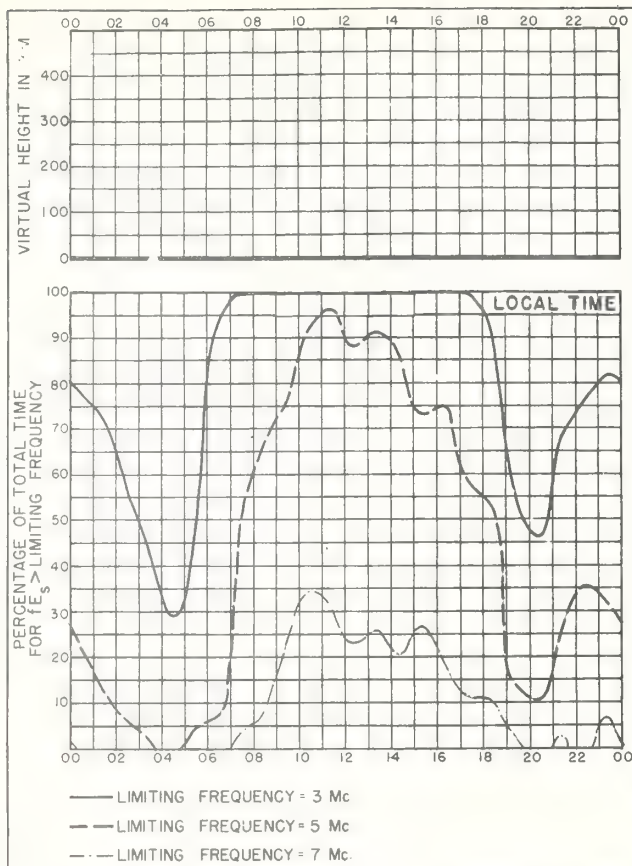


Fig. 48. LEYTE, PHILIPPINE IS.

FEBRUARY, 1946

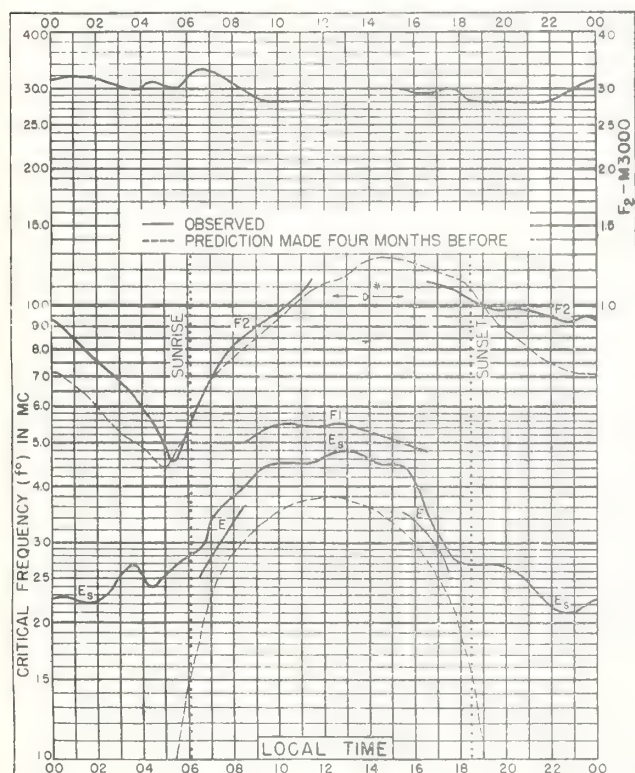


Fig. 49. CAPE YORK, AUSTRALIA

11 0°S, 142 4°E

FEBRUARY, 1946

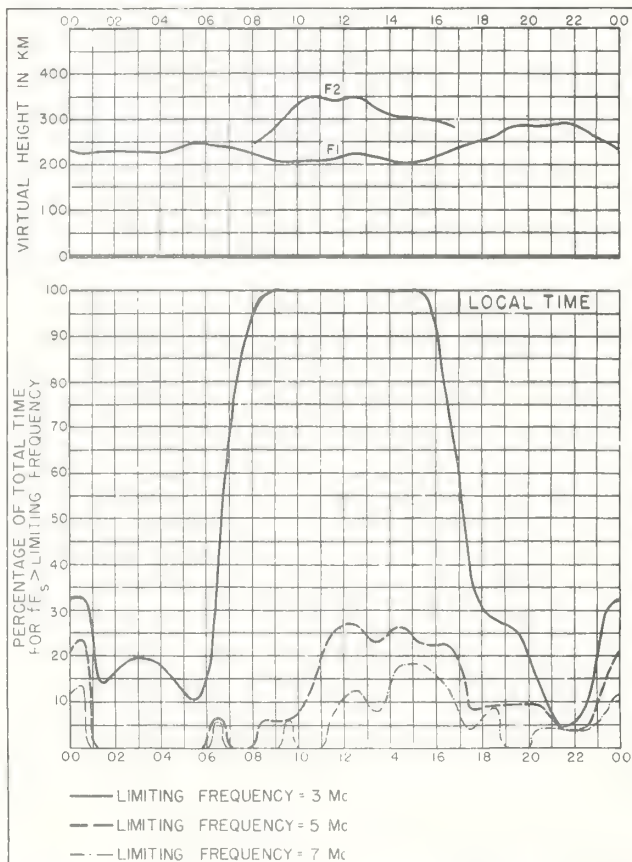


Fig. 50. CAPE YORK, AUSTRALIA

FEBRUARY, 1946



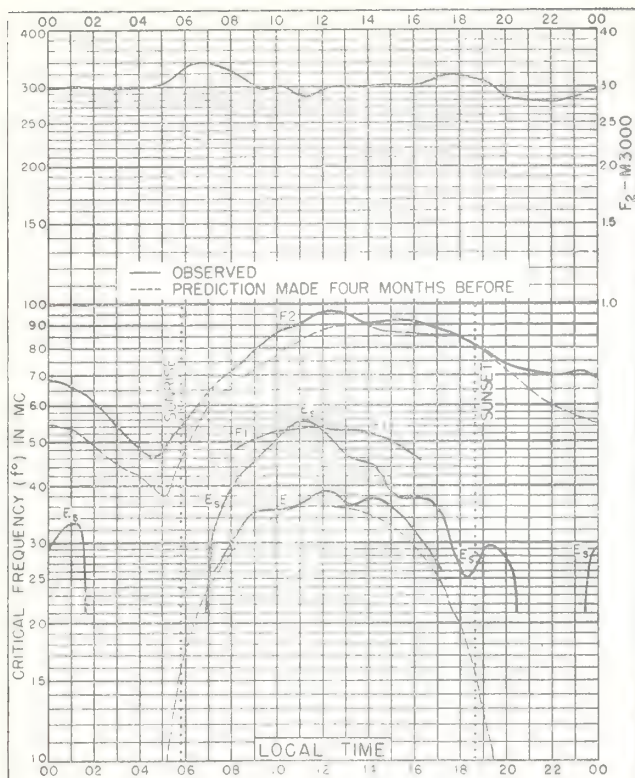


Fig. 51. BRISBANE, AUSTRALIA  
27.5°S, 153.0°E

FEBRUARY, 1946

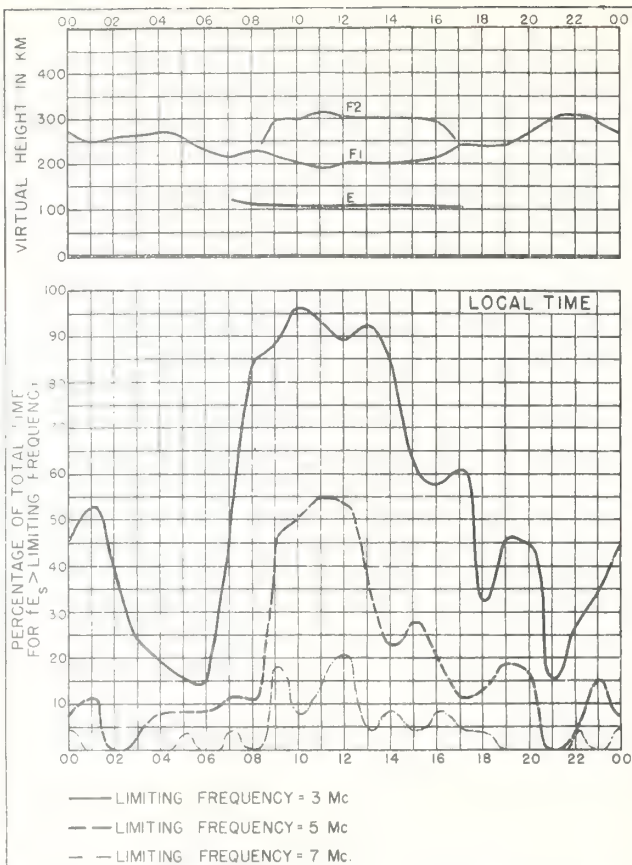


Fig. 52. BRISBANE, AUSTRALIA

FEBRUARY, 1946

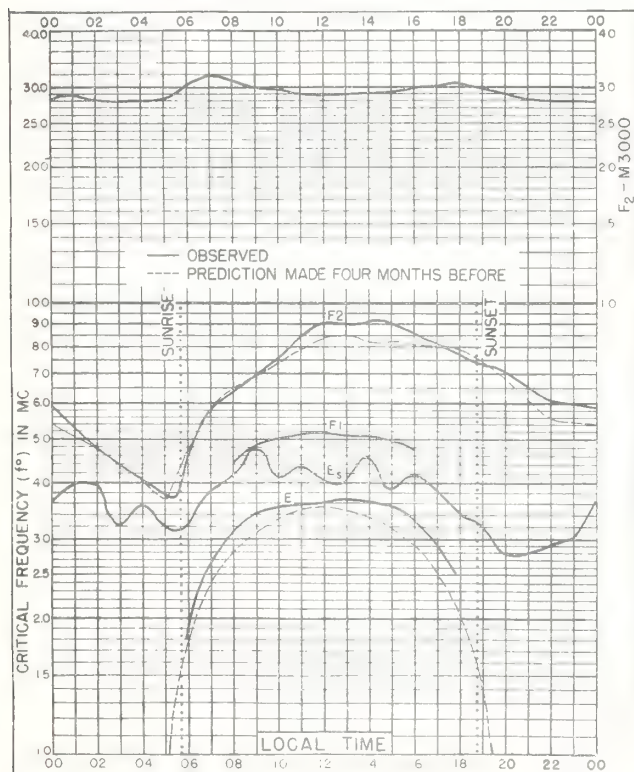


Fig. 53. WATHEROO, W. AUSTRALIA  
30.3°S, 115.9°E

FEBRUARY, 1946

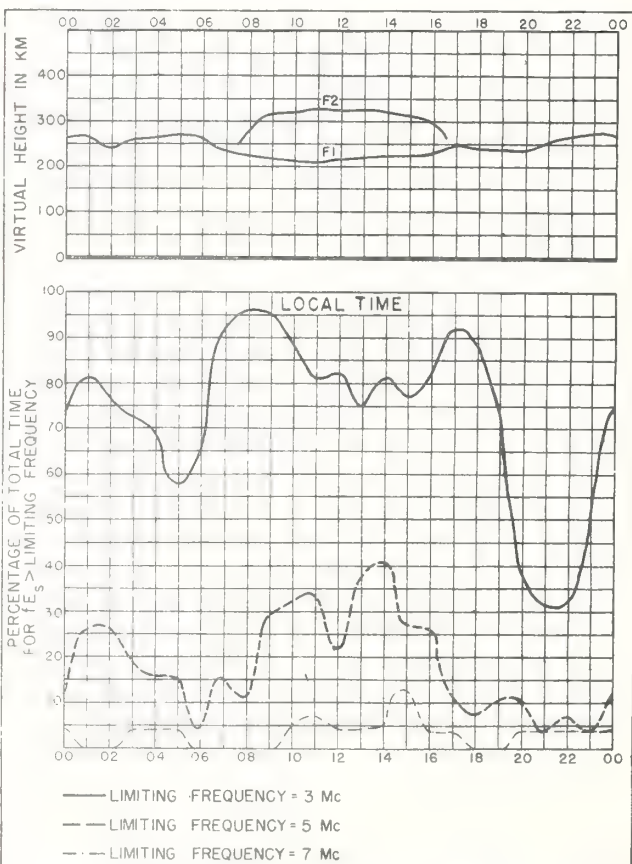


Fig. 54. WATHEROO, W. AUSTRALIA

FEBRUARY, 1946

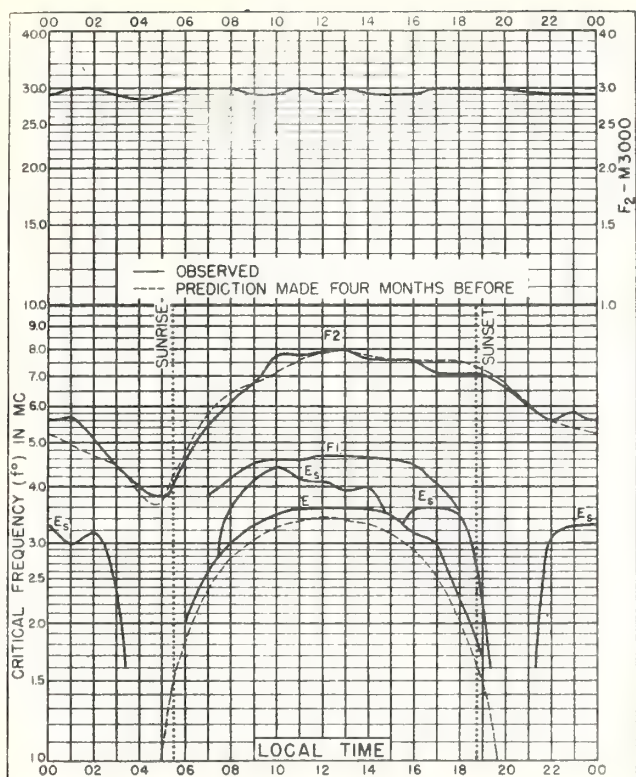


Fig 55. CANBERRA, AUSTRALIA  
35.3°S, 149.0°E

FEBRUARY, 1946

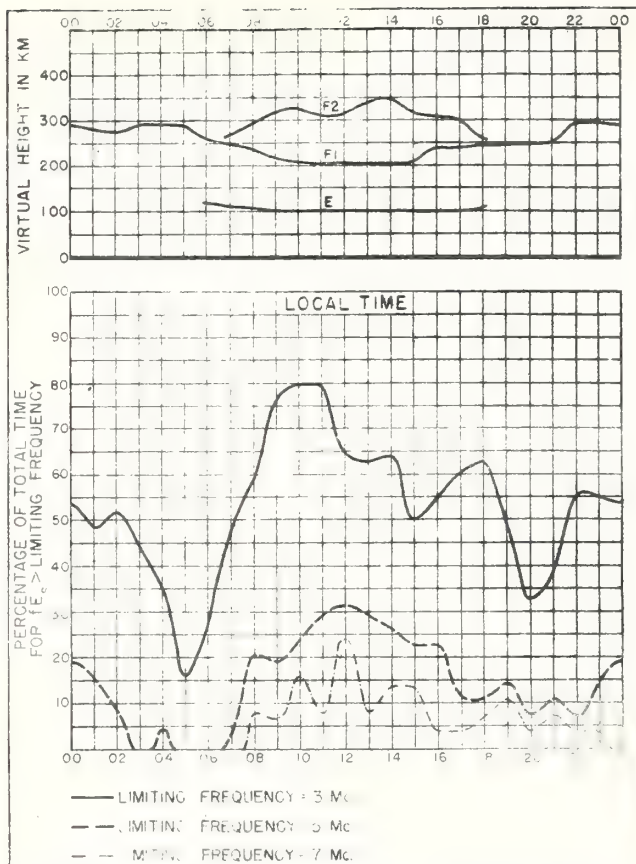


Fig 56. CANBERRA, AUSTRALIA

FEBRUARY, 1946

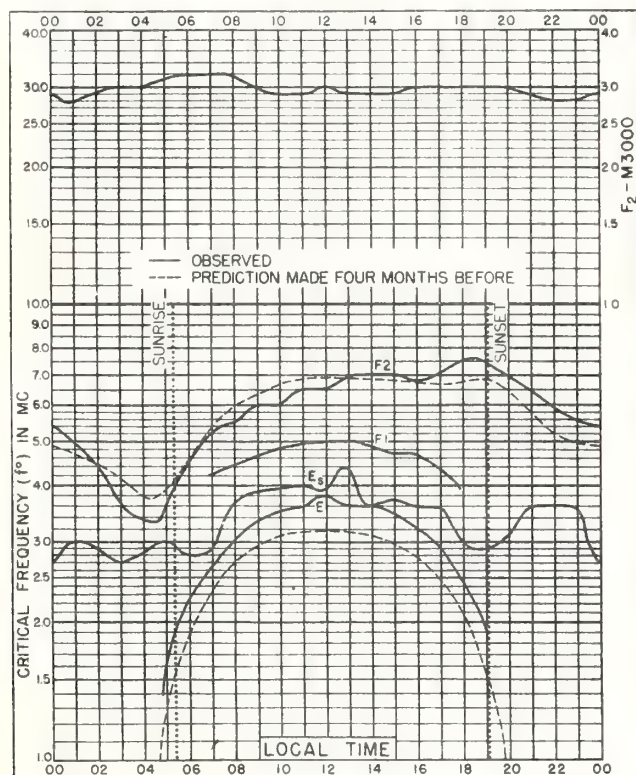


Fig 57. HOBART, TASMANIA  
42.8°S, 147.4°E

FEBRUARY, 1946

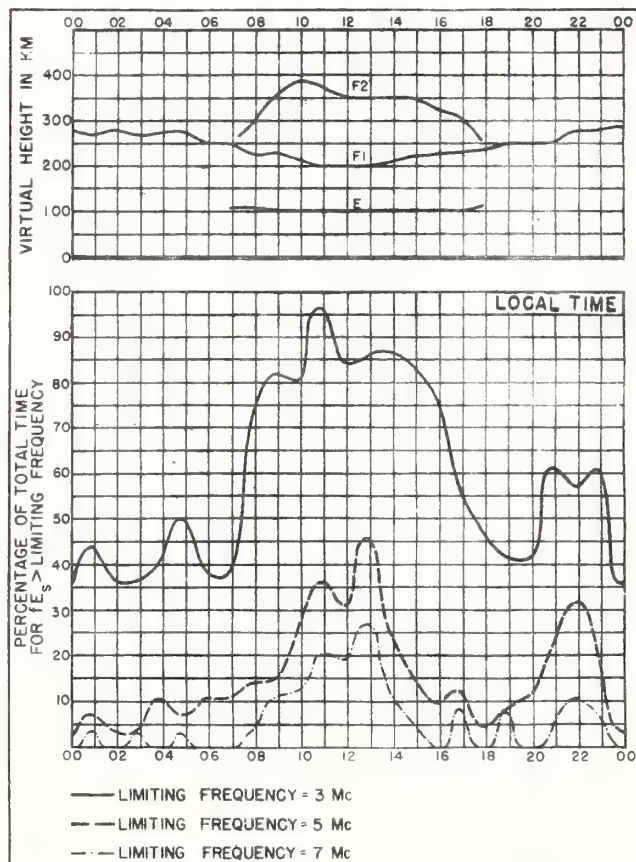


Fig 58. HOBART, TASMANIA

FEBRUARY, 1946



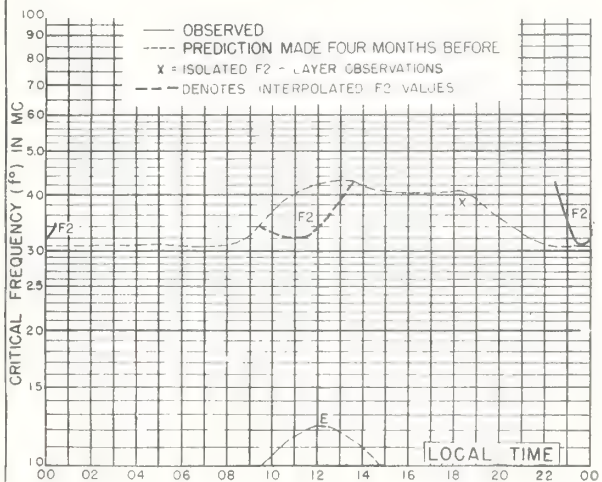
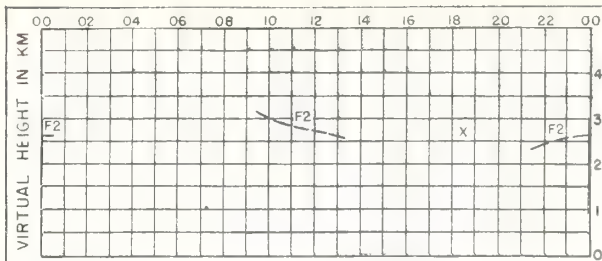


Fig. 59. BUKHTA TIKHAYA

80.3°N, 52.7°E

JANUARY, 1946

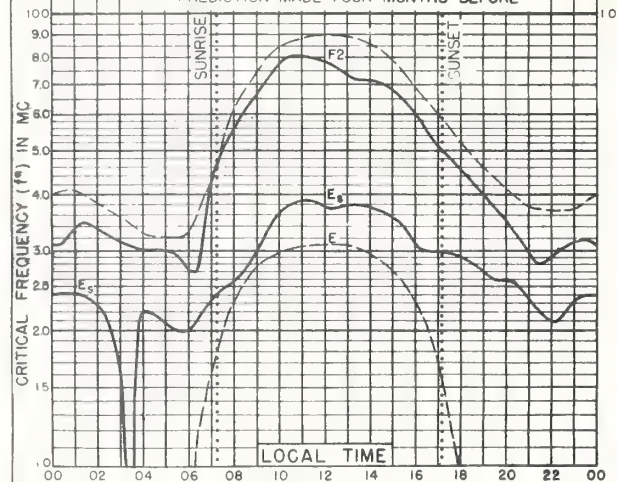
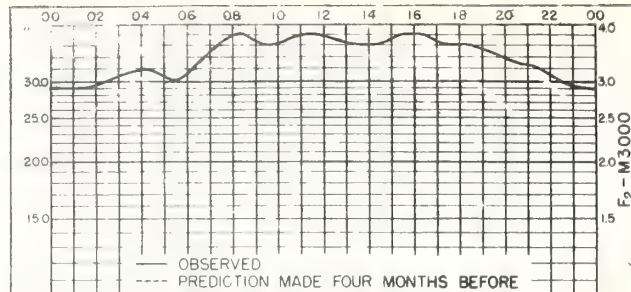


Fig. 60. TOKYO, JAPAN

35.6°N, 139.6°E

JANUARY, 1946

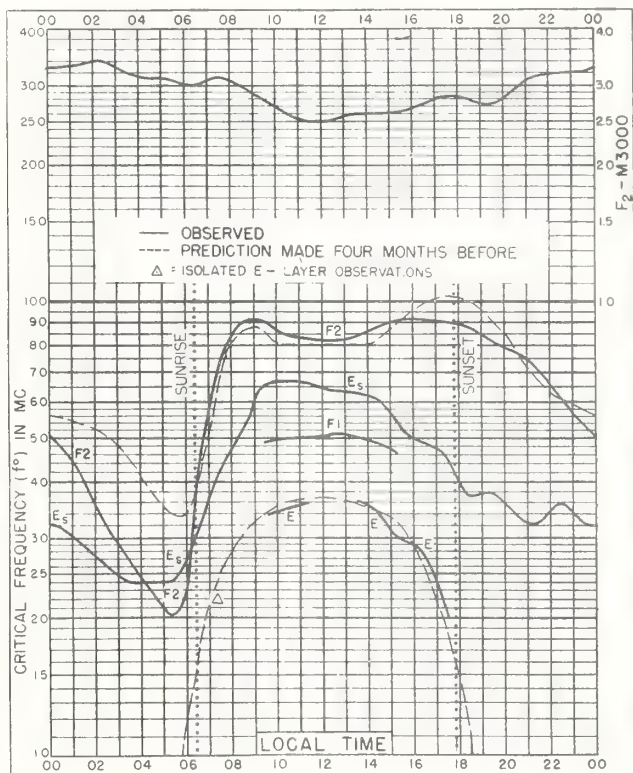


Fig. 61. LEYTE, PHILIPPINE IS.

11.0°N, 125.0°E

JANUARY, 1946

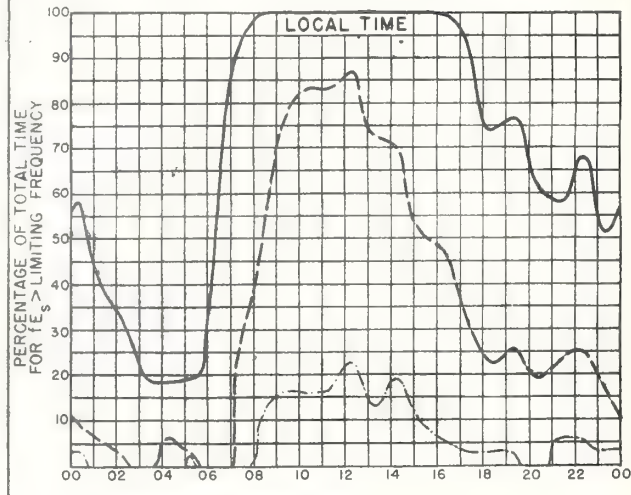
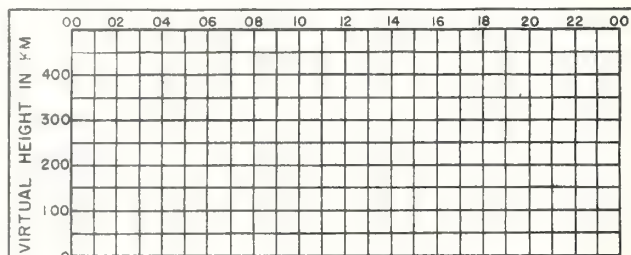
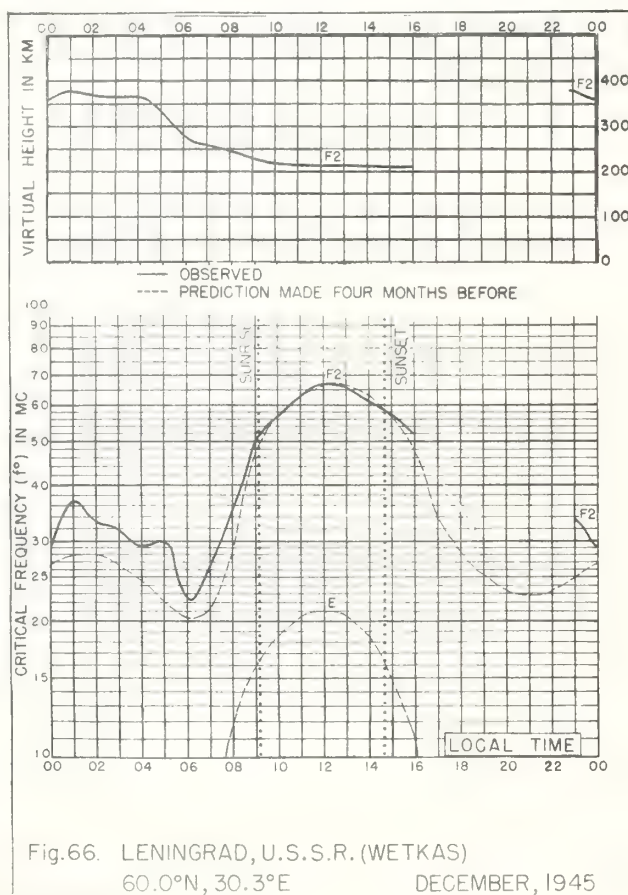
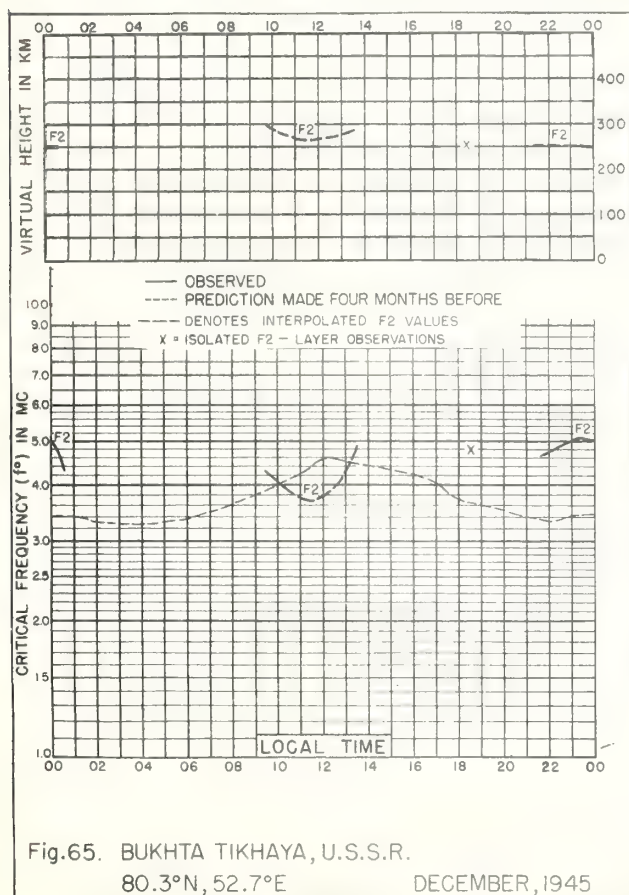
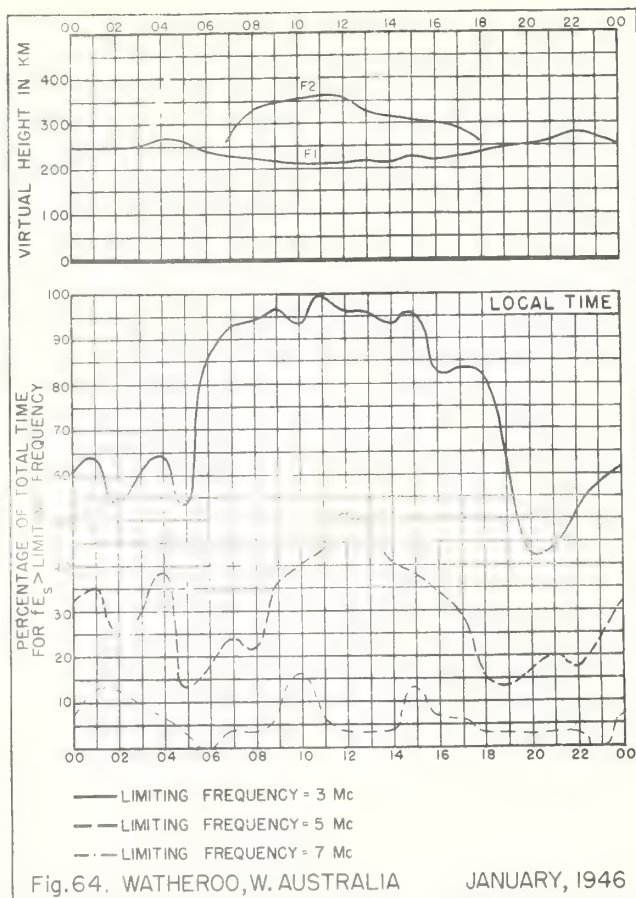
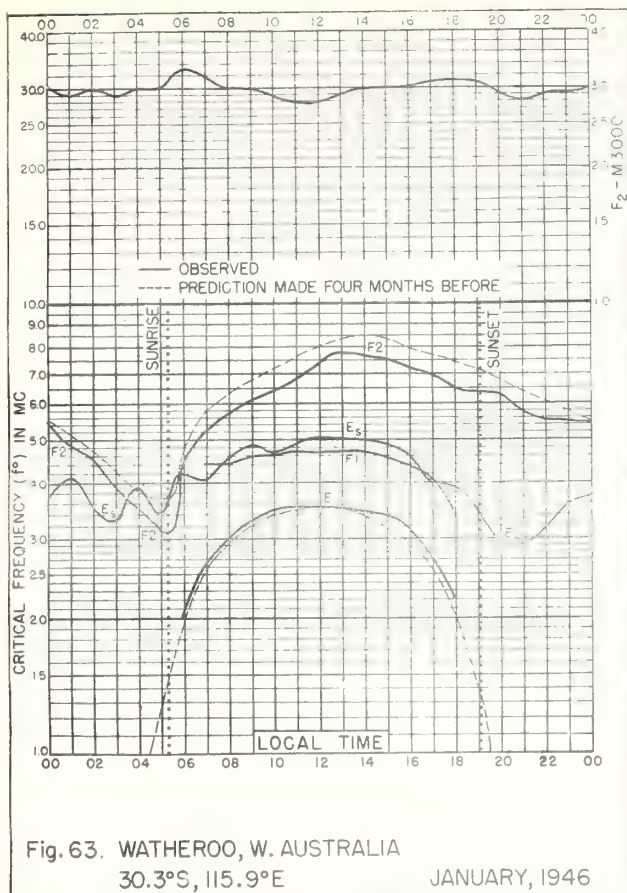
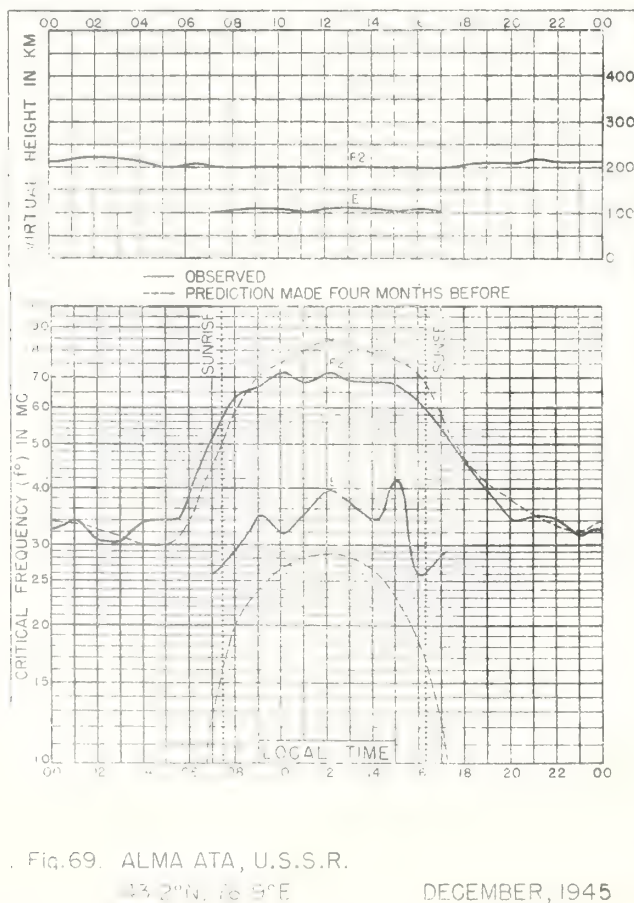
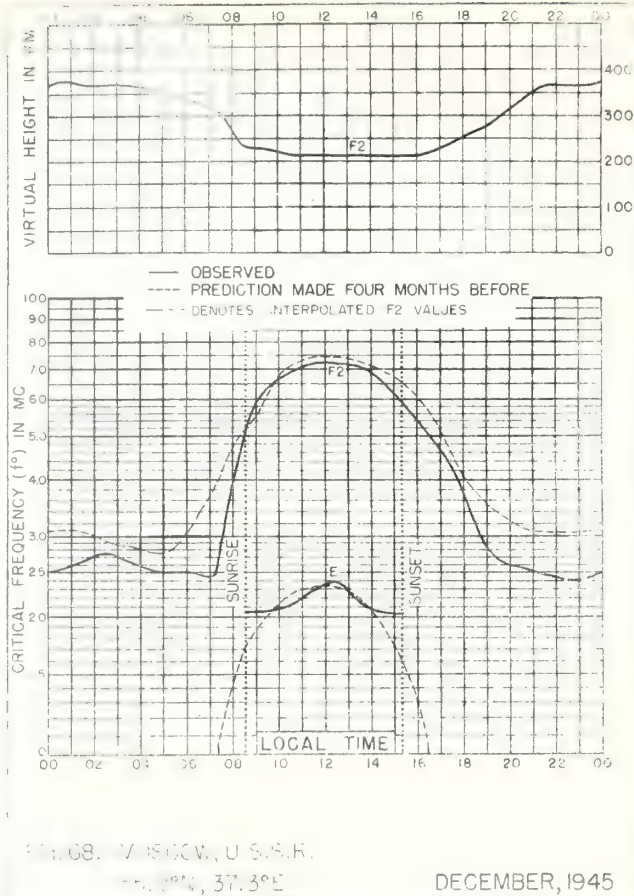
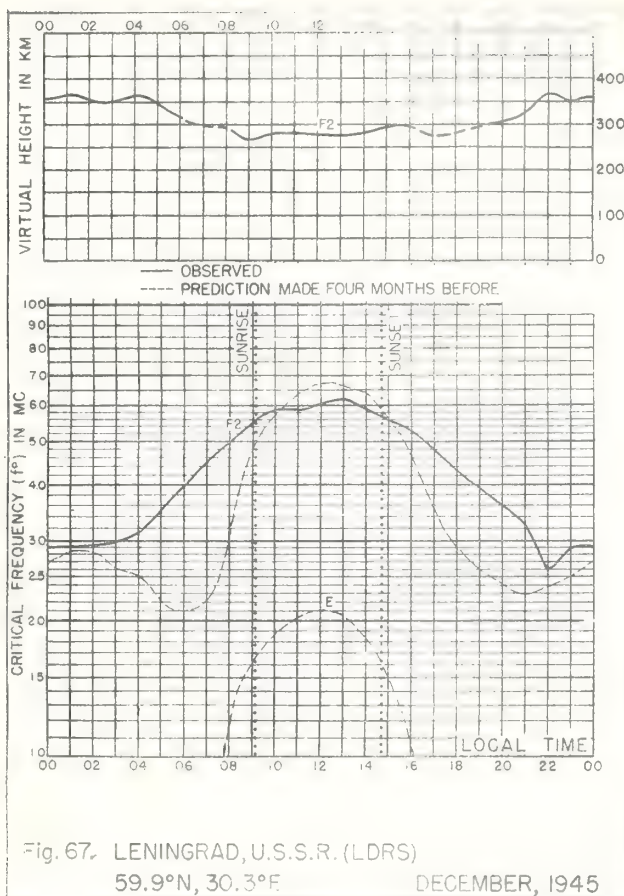


Fig. 62. LEYTE, PHILIPPINE IS.

JANUARY, 1946









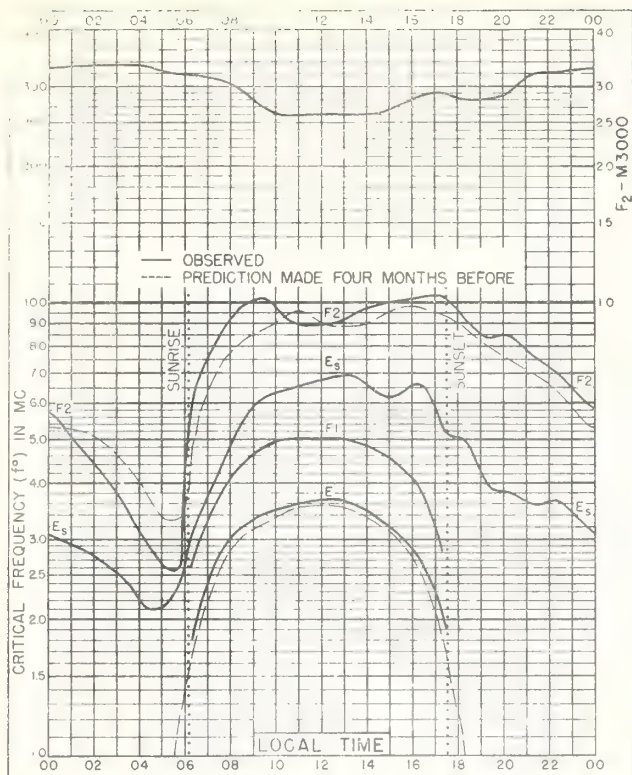


Fig. 70. LEYTE, PHILIPPINE IS.

11.0°N, 125.0°E

DECEMBER, 1945

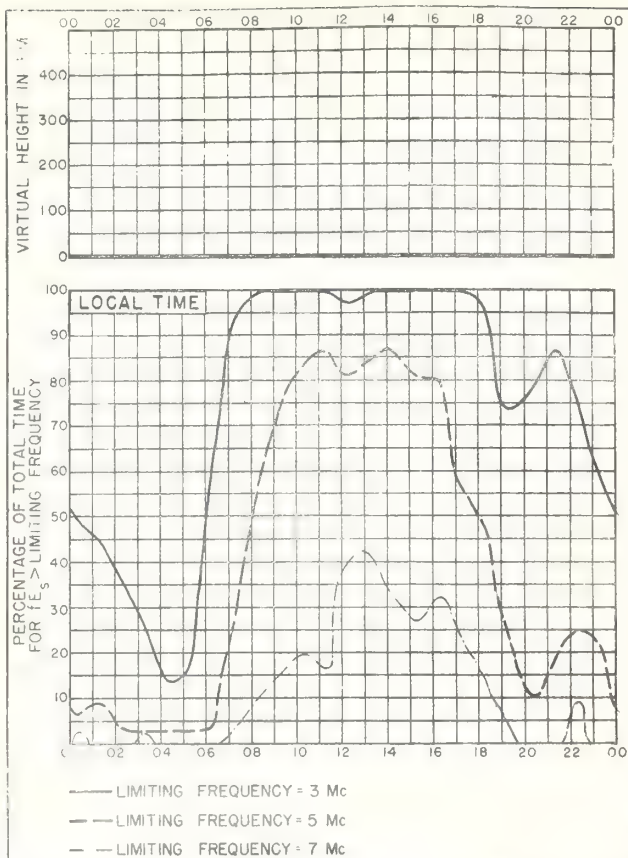


Fig. 71. LEYTE, PHILIPPINE IS.

DECEMBER, 1945

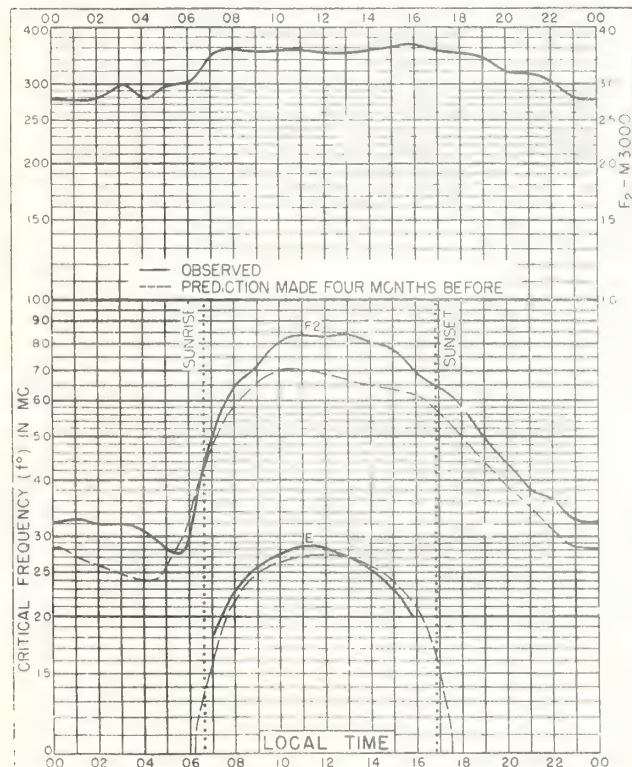


Fig. 72. SVERDLOVSK, U.S.S.R.

56.7°N, 61.1°E

OCTOBER, 1945

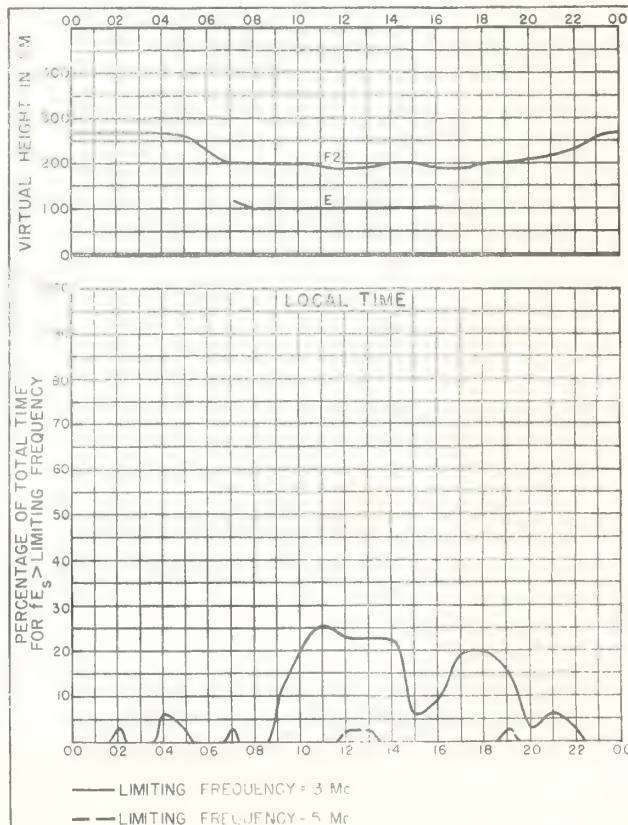


Fig. 73. SVERDLOVSK, U.S.S.R.

OCTOBER, 1945



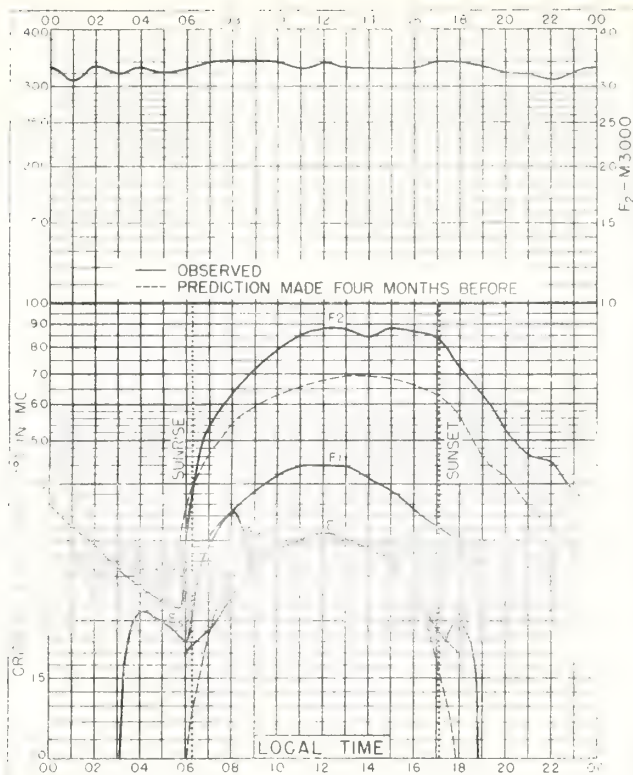


Fig. 74. ST. JOHN'S, NEWFOUNDLAND  
47.6°N, 52.7°W OCTOBER, 1945

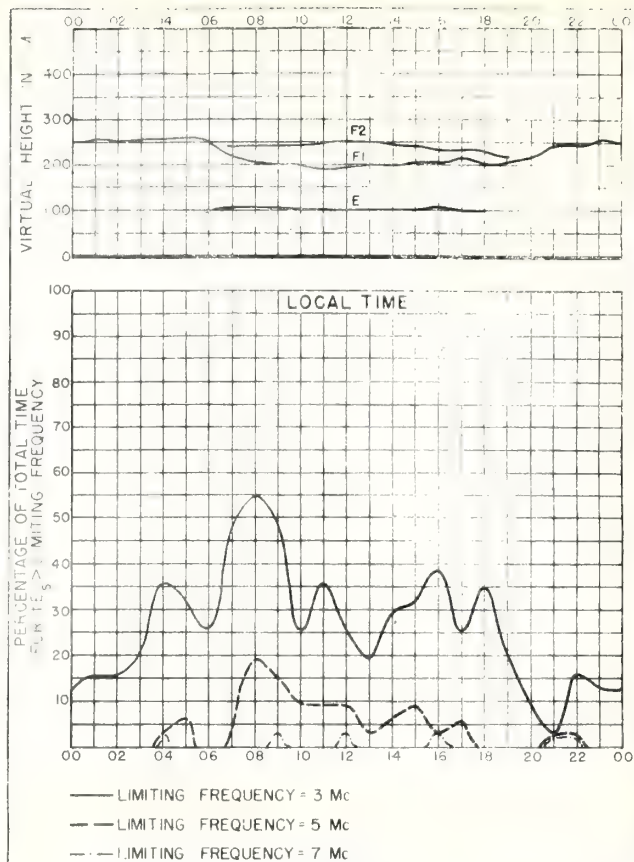


Fig. 75. ST. JOHN'S, NEWFOUNDLAND OCTOBER, 1945

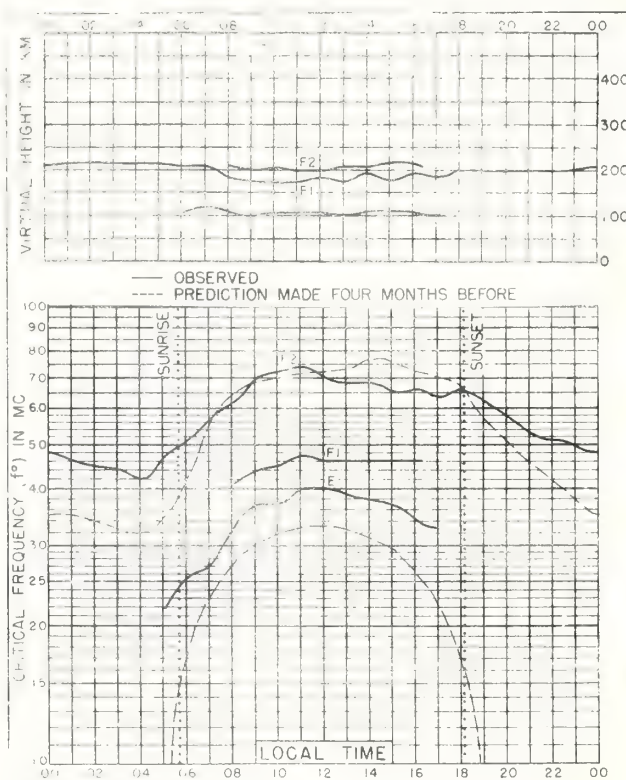


Fig. 76. ALMA ATA, U.S.S.R.  
43.2°N, 76.9°E SEPTEMBER, 1945

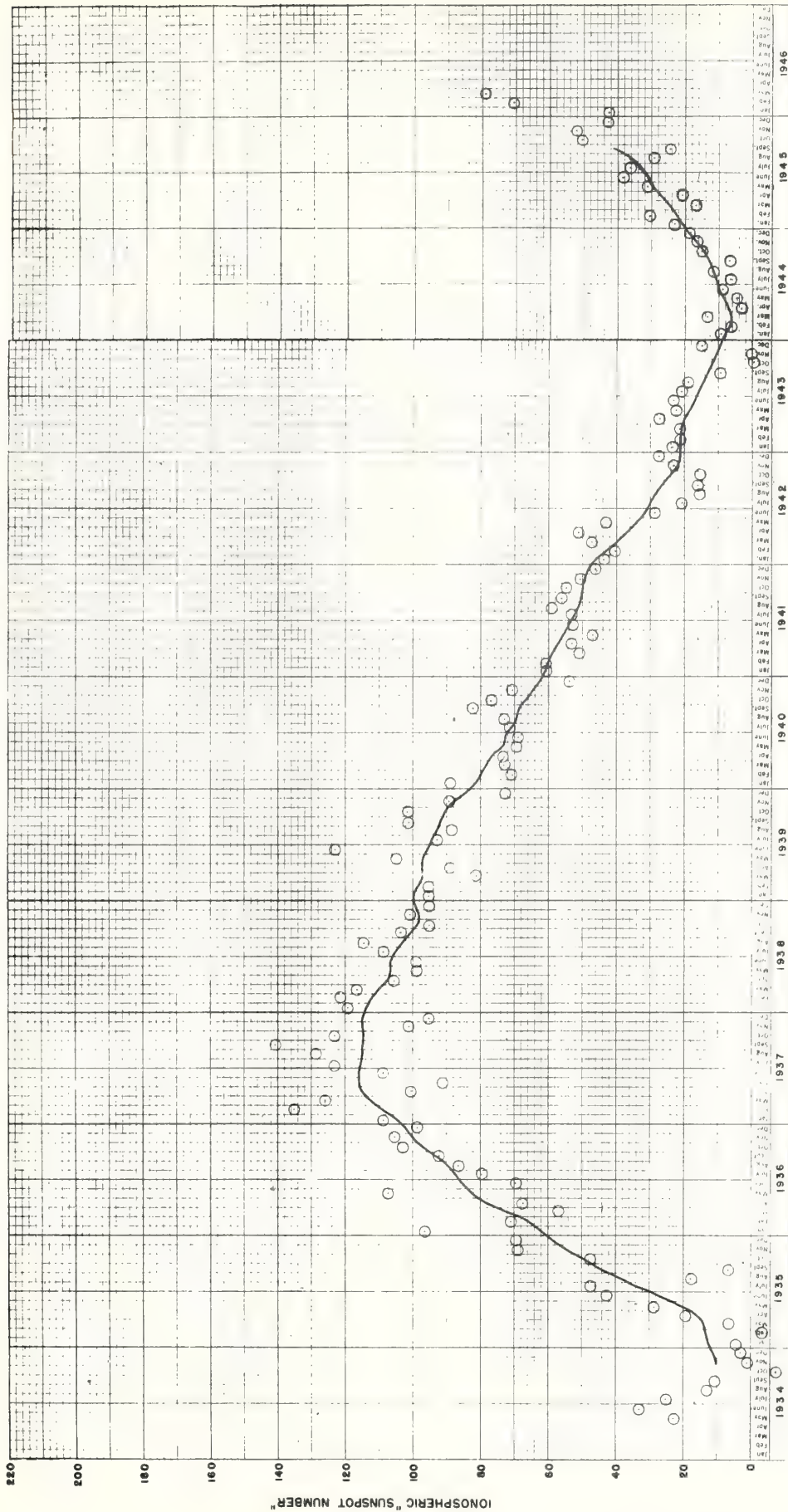


Fig. 77. VARIATION OF IONOSPHERIC "SUNSPOT NUMBER" AS DETERMINED BY YEARLY-AVERAGE TREND AND AVERAGE MONTHLY INDEX OF  $f^oF_2$



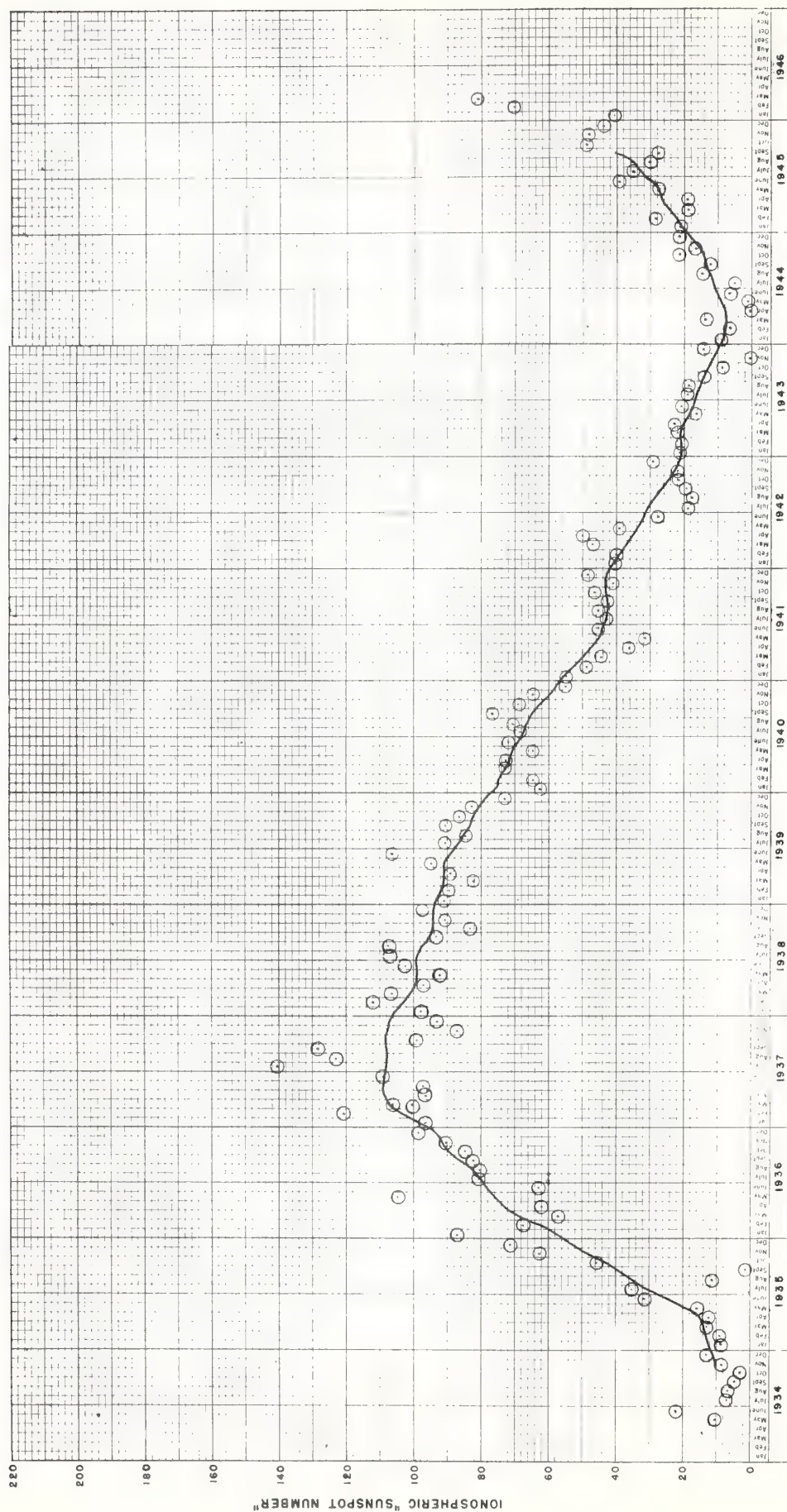


Fig. 78. VARIATION OF IONOSPHERIC "SUNSPOT NUMBER" AS DETERMINED BY TREND OF MONTHLY AVERAGE  $f^oF_2$

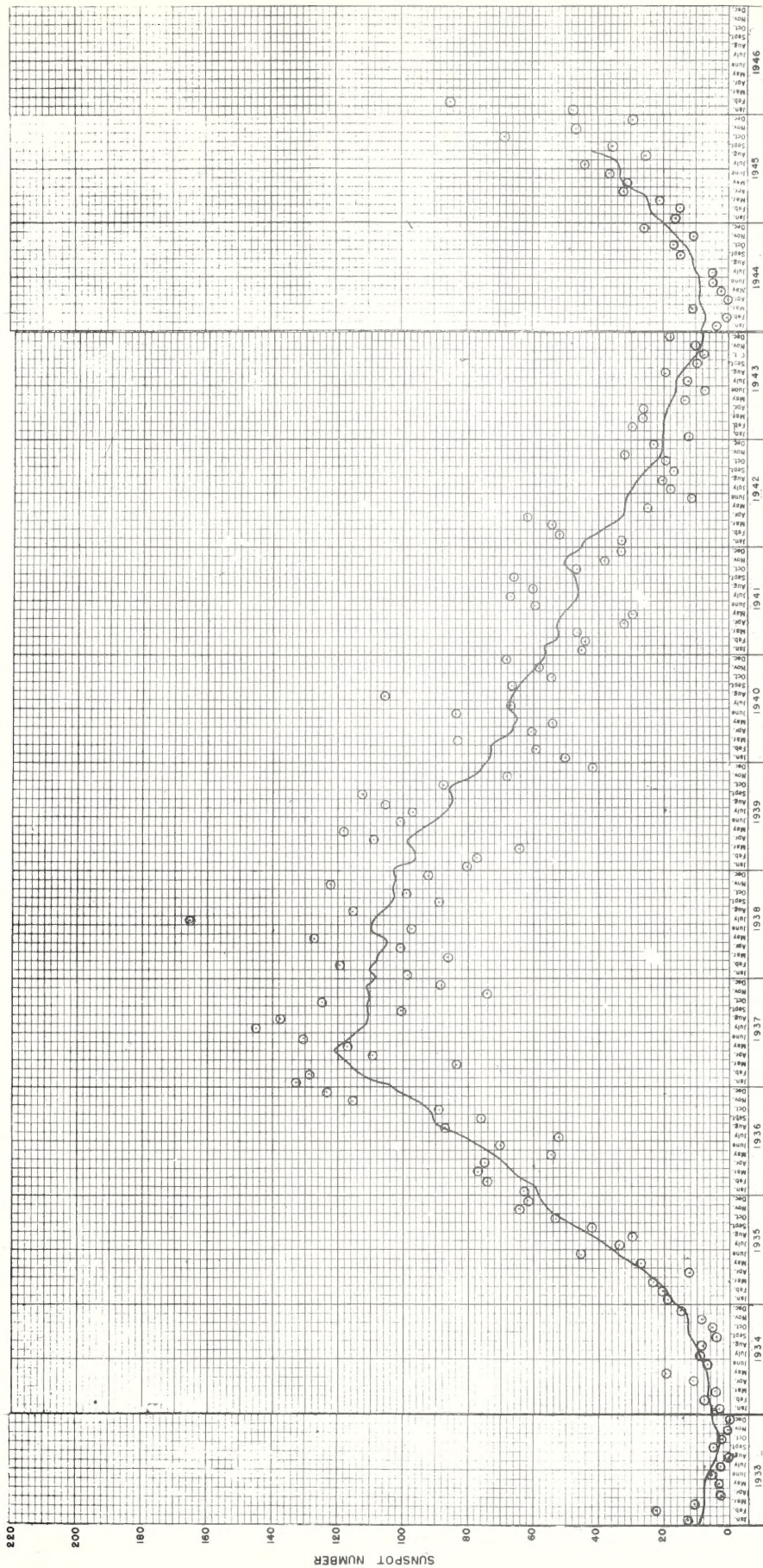


Fig. 79. VARIATION OF ZURICH SUNSPOT NUMBER.







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Telephoned and telegraphed reports of ionospheric, solar, geomagnetic, and radio propagation data from various places.  
Radio disturbance warnings.

Semiweekly:

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IRPL-Ja. Semimonthly Frequency Revision Factors for IRPL Basic Radio Propagation Prediction Reports. (Issued with IRPL-J series approximately one week in advance.)

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IRPL-D. Basic Radio Propagation Predictions - Three months in advance. War Dept. TB 11-499, monthly supplements to TM 11-499; Navy Dept. (DNC-13-1), monthly supplements to DNC-13-1.)

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- R6. Experimental Studies of Ionospheric Propagation As Applied to The Loran System.
- R7. Second Report on Experimental Studies of Ionospheric Propagation As Applied to The Loran System.
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- R13. Ionospheric and Radio Propagation Disturbances, October 1943 Through February 1945.
- R14. A Graphical Method for Calculating Ground Reflection Coefficients.
- R15. Predicted Limits for F2-layer Radio Transmission Throughout the Solar Cycle.
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- R17. Japanese Ionospheric Data - 1943.
- R18. Comparison of Geomagnetic Records and North Atlantic Radio Propagation Quality Figures - October 1943 through May 1945.
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- R27. Relationships Between Radio Propagation Disturbance and Central Meridian Passage of Sunspots Grouped by Distance From Center of Disc.
- R28. Nomographic Predictions of F2-Layer Frequencies Throughout the Solar Cycle for January.
- R29. Revised Classification of Radio Subjects Used in National Bureau of Standards (N.B.S. Letter Circular LC-814 superseding circular C385).
- R30. Disturbance Rating in Values of IRPL Quality - Figure Scale From A. T. & T. Co. Transmission Disturbance Reports to Replace T.D. Figures as Reported.
- R31. North Atlantic Radio Propagation Disturbances, October 1943 through October 1945.
- R32. Nomographic Predictions of F2-Layer Frequencies Throughout the Solar Cycle, for February.
- R33. Ionospheric Data on File at IRPL.
- R34. The Interpretation of Recorded Values of fEs.
- R35. Comparison of Percentage of Total Time of Occurrence of Second-Multiple Es Reflections and That of fEs in Excess of 3 Mc.

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T1. Radar Operation and Weather. (Superseded by JANP 101.)

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